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WEATHER BUREAU - - F. W. Reichelderfer, *Chief*

MONTHLY WEATHER REVIEW

AUGUST 1946

CONTENTS

METEOROLOGICAL AND CLIMATOLOGICAL DATA:	Page
Aerological Observations	137
River Stages and Floods	141
Climatological Data	142

SOLAR RADIATION AND SUNSPOT DATA:	Page
Solar Radiation Observations	148
Positions, Areas, and Counts of Sunspots	150
Provisional Relative Sunspot Numbers for August 1946	152

CHARTS I–XI. (Chart VII, Snowfall, omitted until November.)

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Contour lines and isotherms based on radiosonde observations at 0300 G.C.T., and winds based on pilot balloon observations at 2200 G.C.T.

MONTHLY WEATHER REVIEW

Acting Editor, Robert N. Culnan

VOL. 74, No. 8
W. B. No. 1473

AUGUST 1946

CLOSED OCTOBER 5, 1946
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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR AUGUST 1946

AEROLOGICAL OBSERVATIONS

[For description of change in Table 1 and charts, see REVIEW, January 1946, p. 6]

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during August 1946*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Albany, N. Y. (1,004.6 mb.)				Albuquerque, N. Mex. (840.0 mb.)				Apalachicola, Fla. (1,016.1 mb.)				Atlanta, Ga. (982.0 mb.)				Auburn, Calif. (954.8 mb.)				Big Spring, Tex. (926.1 mb.)				Bismarck, N. Dak. (956.5 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	93	16.9	84	31	1,620	23.1	53	28	5	26.2	85	31	300	23.6	78	31	501	25.2	32	31	774	29.6	38	30	505	19.5	61
1,000	31	133	16.9	82	31	62	(*)	----	28	146	25.9	84	31	140	(*)	----	31	89	(*)	----	31	82	(*)	----	30	116	(*)	----
950	31	573	15.6	77	31	532	(*)	----	28	598	23.1	80	31	594	23.2	72	31	549	25.9	31	31	546	(*)	----	30	564	19.6	58
900	31	1,028	12.8	77	31	1,015	(*)	----	28	1,068	20.3	78	31	1,061	20.3	72	31	1,021	24.7	25	31	1,028	27.9	40	30	1,029	18.0	54
850	31	1,506	9.6	79	31	1,517	(*)	----	28	1,561	17.1	75	31	1,553	17.0	70	31	1,518	21.4	21	31	1,533	24.2	43	30	1,515	14.7	59
800	31	2,007	6.4	81	31	2,044	20.6	45	28	2,076	14.0	74	31	2,068	13.6	69	31	2,039	17.8	19	31	2,060	20.0	47	29	2,027	11.4	58
750	31	2,539	3.2	78	31	2,601	16.8	49	28	2,618	10.9	67	31	2,613	10.7	58	31	2,589	13.9	20	31	2,612	15.2	55	29	2,574	7.9	55
700	31	3,090	0.5	70	31	3,182	12.1	57	28	3,191	7.7	64	31	3,181	7.7	54	31	3,163	9.9	22	31	3,192	11.2	57	29	3,131	5.0	46
650	31	3,687	−2.2	59	31	3,800	7.1	65	28	3,801	4.3	61	31	3,793	4.1	52	31	3,775	5.6	25	31	3,806	7.1	51	29	3,736	1.6	39
600	29	4,311	−5.6	48	31	4,452	2.1	74	28	4,447	1.0	56	31	4,435	0.5	48	31	4,422	0.9	25	31	4,461	3.0	44	29	4,373	−2.3	39
550	29	4,989	−9.4	41	31	5,152	−2.7	79	28	5,141	−2.9	57	31	5,129	−3.5	48	31	5,111	−4.1	----	30	5,163	−1.2	37	29	5,062	−6.6	34
500	28	5,720	−14.1	----	31	5,900	−7.0	80	28	5,891	−7.1	55	31	5,876	−7.7	46	31	5,859	−9.2	----	30	5,916	−5.7	30	29	5,797	−11.4	39
450	28	6,516	−19.4	----	31	6,726	−11.5	78	27	6,713	−12.1	56	31	6,696	−12.6	42	31	6,670	−15.0	----	30	6,743	−11.0	----	29	6,610	−16.8	37
400	28	7,377	−25.6	----	31	7,611	−17.0	64	27	7,598	−18.1	58	31	7,577	−18.4	44	30	7,542	−21.8	----	29	7,629	−16.7	----	27	7,468	−23.3	----
350	28	8,330	−33.0	----	31	8,599	−23.8	----	27	8,581	−25.2	----	31	8,559	−25.6	----	30	8,510	−29.2	----	29	8,618	−23.7	----	27	8,432	−30.3	----
300	28	9,395	−40.8	----	31	9,706	−32.2	----	27	9,680	−33.6	----	31	9,658	−34.0	----	30	9,593	−37.6	----	28	9,726	−32.1	----	27	9,510	−38.4	----
250	27	10,617	−47.8	----	31	10,965	−42.5	----	27	10,933	−43.5	----	31	10,908	−43.9	----	30	10,826	−46.5	----	28	10,987	−42.0	----	27	10,740	−46.8	----
200	27	12,070	−52.8	----	28	12,435	−55.1	----	27	12,393	−55.6	----	31	12,369	−55.2	----	30	12,277	−55.0	----	25	12,458	−53.4	----	25	12,190	−53.1	----
175	26	12,923	−55.3	----	24	13,274	−61.7	----	27	13,229	−62.1	----	29	13,207	−60.7	----	29	13,126	−58.4	----	17	13,309	−59.7	----	24	13,049	−54.4	----
150	26	13,901	−57.3	----	15	14,222	−67.8	----	25	14,170	−68.2	----	26	14,149	−65.8	----	27	14,082	−61.7	----	14	14,259	−65.6	----	18	14,030	−55.5	----
125	23	15,056	−59.6	----	5	15,280	−72.2	----	16	15,253	−72.5	----	21	15,249	−68.4	----	22	15,187	−63.7	----	5	15,337	−71.4	----	5	15,227	−57.4	----
100	14	16,469	−60.7	----	----	----	----	----	10	16,568	−70.9	----	11	16,565	−67.9	----	8	16,550	−64.3	----	----	----	----	----	----	----	----	----
80	8	17,869	−58.7	----	----	----	----	----	5	17,895	−67.8	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Boise, Idaho (913.6 mb.)				Brownsville, Tex. (1,012.8 mb.)				Buffalo, N. Y. (990.2 mb.)				Burrwood, La. (1,015.8 mb.)				Caribou, Maine (992.8 mb.)				Charleston, S. C. (1,014.8 mb.)				Ciudad Victoria, Mexico (972.8 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	868	25.8	33	31	6	27.9	78	31	221	17.3	78	31	2	27.1	81	31	191	15.2	83	31	14	23.3	91	31	335	29.7	55
1,000	31	64	(*)	----	31	119	27.1	79	31	135	(*)	----	31	141	26.3	80	31	129	(*)	----	31	143	23.9	87	31	87	(*)	----
950	31	525	(*)	----	31	577	24.0	80	31	574	16.6	71	31	597	23.1	81	31	566	15.3	71	31	595	22.2	79	31	547	28.1	55
900	31	1,000	27.3	24	31	1,045	22.0	63	31	1,033	13.4	73	31	1,064	20.2	73	31	1,021	12.3	72	31	1,062	19.6	77	31	1,024	24.3	59
850	31	1,501	23.7	23	31	1,541	19.9	50	31	1,513	9.8	76	31	1,556	17.3	67	31	1,498	8.9	79	31	1,553	16.7	73	31	1,522	20.4	64
800	31	2,026	19.4	25	31	2,061	17.2	43	31	2,013	6.4	80	31	2,072	14.4	64	31	1,998	5.5	82	31	2,068	13.7	70	31	2,043	16.4	68
750	31	2,580	14.9	29	31	2,607	14.1	39	31	2,550	3.3	74	31	2,621	11.5	57	31	2,525	2.8	78	31	2,612	10.5	63	31	2,595	12.6	67
700	31	3,154	10.2	33	31	3,187	10.6	36	31	3,097	0.5	62	30	3,191	8.5	54	31	3,079	−0.1	69	31	3,182	7.4	63	31	3,166	9.4	57
650	31	3,768	5.2	36	31	3,801	6.8	33	31	3,695	−2.7	53	30	3,806	5.0	55	31	3,671	−3.0	63	30	3,792	3.8	64	31	3,784	5.8	52
600	31	4,413	0.0	40	31	4,453	2.7	35	31	4,320	−6.0	44	29	4,454	1.7	49	31	4,300	−6.4	58	30	4,436	0.3	59	31	4,428	1.9	51
550	31	5,105	−5.0	39	31	5,154	−1.6	33	31	5,001	−9.8	----	29	5,154	−2.3	47	31	4,976	−10.2	51	29	5,131	−3.2	51	30	5,126	−2.0	46
500	31	5,845	−10.5	38	31	5,903	−6.0	32	31	5,724	−14.6	----	29	5,903	−6.8	42	31	5,703	−14.7	39	28	5,877	−7.4	----	30	5,878	−6.2	41
450	31	6,652	−16.4	----	31	6,726	−10.8	28	31	6,522	−20.0	----	29	6,724	−11.9	46	30	6,498	−20.1	39	25	6,698	−12.5	----	29	6,702	−11.0	37
400	31	7,523	−22.8	----	31	7,617	−16.6	----	31	7,377	−26.2	----	29	7,611	−17.6	43	30	7,353	−26.4	----	23	7,581	−17.9	----	29	7,590	−16.3	37
350	30	8,485	−30.2	----	30	8,604	−23.9	----	30	8,331	−33.1	----	29	8,596	−24.5	----	30	8,303	−33.6	----	23	8,595	−25.1	----	28	8,578	−23.9	----
300	30	9,563	−38.6	----	28	9,709	−32.2	----	30	9,396	−41.2	----	29	9,700	−32.9	----	29	9,361	−41.8	----	21	9,662	−33.5	----	27	9,682	−32.6	----
250	30	10,790	−47.7	----	27	10,972	−41.8	----	29	10,614	−49.0	----	28	10,958	−42.6	----	28	10,574	−48.7	----	20	10,917	−43.6	----	27	10,939	−42.8	----
200	28	12,227	−54.7	----	26	12,447	−53.2	----	28	12,078	−51.8	----	28	12,428	−53.7	----	27	12,029	−51.9	----	19	12,386	−55.0	----	27	12,405	−54.5	----
175	26	13,078	−57.3	----	23	13,290	−59.5	----	28	12,937	−53.6	----	26	13,272	−59.9	----	27	12,893	−52.5	----	17	13,238	−60.7	----	27	13,246	−60.8	----
150	18	14,034	−59.7	----	17	14,254	−64.9	----	25	13,915	−55.2	----	20	14,223	−65.6	----	25	13,899	−53.9	----	13	14,188	−66.3	----	22	14,194	−65.7	----
125	12	15,176	−61.7	----	----	----	----	----	19	15,060	−56.7	----	9	15,299	−69.5	----	19	15,008	−55.8	----	7	15,301	−69.8	----	13	15,281	−71.0	----
100	----	----	----	----	----	----	----	----	17	16,469	−56.4	----	----	----	----	----	12	16,483	−55.9	----	----	----	----	----	----	----	----	----
80	----	----	----	----	----	----	----	----	11	17,880	−55.6	----	----	----	----	----	6	17,905	−55.5	----	----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Columbia, Mo. (987.8 mb.)				Dodge City, Kans. (925.2 mb.)				El Paso, Tex. (881.4 mb.)				Ely, Nev. (810.8 mb.)				Fort Worth, Tex. (989.4 mb.)				Glasgow, Mont. (940.1 mb.)				Grand Junction, Colo. (853.4 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	30	239	22.5	76	29	787	24.7	56	31	1,195	28.6	38	31	1,908	19.8	39	30	211	30.1	50	31	648	21.3	44	31	1,474	24.5	41
1,000	30	132	(*)	----	29	96	(*)	----	31	51	(*)	----	31	47	(*)	----	30	115	(*)	----	31	106	(*)	----	31	58	(*)	----
950	30	584	21.7	66	29	553	(*)	----	31	523	(*)	----	31	514	(*)	----	30	583	28.2	51	31	557	(*)	----	31	529	(*)	----
900	30	1,047	19.3	66	29	1,029	25.2	50	31	1,010	(*)	----	31	994	(*)	----	30	1,052	25.0	54	31	1,024	19.8	43	31	1,010	(*)	----
850	30	1,537	16.6	63	29	1,530	22.3	51	31	1,517	27.3	35	31	1,494	(*)	----	30	1,551	21.3	57	31	1,513	16.0	47	31	1,509	24.7	40
800	30	2,052	14.1	58	29	2,054	18.8	53	31	2,049	23.1	37	31	2,024	22.7	31	30	2,073	17.6	57	31	2,025	11.9	53	31	2,039	22.3	36
750	30	2,598	11.6	52	28	2,607	15.3	52	31	2,607	18.2	43	31	2,585	19.2	28	30	2,625	13.9	56	31	2,566	8.1	56	31	2,599	17.9	40
700	30	3,168	8.1	48	28	3,186	11.4	52	31	3,193	13.0	51	31	3,169	13.9	33	30	3,201	10.6	46	31	3,127	4.4	52	31	3,180	13.0	45
650	30	3,779	4.4	47	28	3,803	6.9	56	31	3,810	7.8	59	31	3,780	8.3	40	29	3,819	7.3	38	31	3,727	0.7	49	31	3,799	7.6	53
600	30	4,423	0.4	47	28	4,454	2.2	56	31	4,465	2.8	62	31	4,443	2.6	49	29	4,470	3.5	----	31	4,366	−3.4	53	31	4,451	2.3	59
550	30	5,116	−3.7	44	28	5,152	−2.3	53	30	5,165	−2.2	64	31	5,138	−3.5	61	28	5,177	−0.5	----	31	5,046	−7.6	49	31	5,147	−3.2	60
500	30	5,864	−8.0	43	28	5,902	−6.6	47	29	5,914	−7.0	60	31	5,885	−9.5	70	27	5,933	−4.6	----	31	5,784	−12.3	43	31	5,896	−8.5	62
450	30	6,684	−12.9	37	28	6,725	−11.3	43	29	6,739	−11.5	47	31	6,703	−14.7	58	26	6,761	−9.7	----	31	6,587	−17.7	42	30	6,715	−13.5	55
400	30	7,564	−18.7	----	28	7,613	−16.8	45	29	7,624	−16.9	41	31	7,576	−20.3	----	26	7,653	−15.4	----	31	7,453	−24.2	----	30	7,595	−19.0	48
350	29	8,546	−25.7	----	27	8,600	−24.0	----	29	8,612	−24.0	----	31	8,552	−27.0	----	26	8,646	−22.9	----	31	8,413	−31.6	----	29	8,581	−26.1	----
300	29	9,644	−33.9	----	27	9,706	−32.4	----	29	9,718	−32.2	----	31	9,645	−35.0	----	22	9,758	−31.6	----	28	9,480	−40.1	----	29	9,669	−34.4	----
250	29	10,897	−42.9	----	27	10,963	−42.7	----	29	10,978	−42.4	----	31	10,892	−44.3	----	22	11,022	−41.3	----	27	10,698	−48.7	----	29	10,918	−44.4	----
200	28	12,371	−52.4	----	27	12,429	−55.0	----	29	12,445	−54.7	----	30	12,351	−54.3	----	19	12,499	−52.6	----	21	12,153	−52.9	----	28	12,373	−55.5	----
175	26	13,235	−57.4	----	26	13,268	−61.4	----	28	13,285	−61.3	----	30	13,197	−59.1	----	19	13,348	−58.6	----	19	13,007	−54.2	----	26	13,214	−60.9	----
150	20	14,210	−61.9	----	15	14,234	−66.5	----	23	14,228	−67.8	----	28	14,153	−63.6	----	7	14,302	−64.8	----	16	13,990	−56.6	----	23	14,158	−65.8	----
125	10	15,342	−65.2	----	5	15,334	−69.5	----	12	15,326	−72.5	----	16	15,252	−66.9	----	----	----	----	----	11	15,137	−57.9	----	11	15,256	−69.2	----
100	----	----	----	----	----	----	----	----	----	----	----	----	5	16,620	−67.1	----	----	----	----	----	----	----	----	----	----	----	----	----

See footnotes at end of table.

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TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during August 1946*—Continued

Standard pressure surface (mb)	Great Falls, Mont. (888.6 mb.)				Greensboro, N. C. (985.3 mb.)				Hatteras, N. C. (1,015.7 mb.)				Havana, Cuba[1] (---- mb.)				Honolulu, T. H.[1] (---- mb.)				Huntington, W. Va. (997.1 mb.)				International Falls, (974.7 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	1,128	20.5	37	30	273	20.6	84	31	3	23.7	87	----	----	----	----	----	----	----	----	31	172	17.1	91	31	360	15.8	81
1,000	31	91	(*)	----	30	144	(*)	----	31	140	23.0	85	----	----	----	----	----	----	----	----	31	146	(*)	----	31	141	(*)	----
950	31	548	(*)	----	30	592	20.9	76	31	590	20.7	79	----	----	----	----	----	----	----	----	31	592	18.6	70	31	582	16.8	71
900	31	1,020	(*)	----	30	1,056	17.8	76	31	1,053	18.2	74	----	----	----	----	----	----	----	----	31	1,050	15.7	71	31	1,039	13.9	70
850	31	1,510	18.8	35	30	1,543	14.4	79	31	1,541	15.5	70	----	----	----	----	----	----	----	----	31	1,533	12.3	73	31	1,518	10.4	74
800	31	2,027	14.8	41	30	2,054	11.0	82	31	2,054	12.5	71	----	----	----	----	----	----	----	----	31	2,038	9.2	69	31	2,020	7.3	68
750	31	2,571	10.5	44	30	2,594	8.1	75	31	2,597	9.9	61	----	----	----	----	----	----	----	----	31	2,578	6.6	60	31	2,554	4.6	59
700	31	3,139	6.1	46	30	3,157	5.0	66	31	3,164	7.0	58	----	----	----	----	----	----	----	----	31	3,136	4.2	52	31	3,109	1.3	54
650	31	3,743	1.5	49	29	3,762	1.7	60	31	3,770	3.5	57	----	----	----	----	----	----	----	----	31	3,736	0.9	44	31	3,705	−1.9	47
600	31	4,381	−3.1	50	29	4,401	−1.5	53	30	4,416	0.0	52	----	----	----	----	----	----	----	----	29	4,375	−2.6	----	30	4,337	−5.5	42
550	31	5,064	−7.7	41	29	5,088	−5.3	43	29	5,106	−3.7	52	----	----	----	----	----	----	----	----	29	5,060	−6.3	----	30	5,017	−9.6	33
500	31	5,799	−12.8	40	28	5,832	−9.5	----	29	5,854	−8.1	----	----	----	----	----	----	----	----	----	28	5,799	−10.6	----	30	5,744	−14.4	37
450	31	6,601	−18.1	----	28	6,645	−14.5	----	29	6,672	−13.1	----	----	----	----	----	----	----	----	----	28	6,604	−16.3	----	30	6,539	−20.0	----
400	31	7,465	−24.5	----	28	7,522	−20.8	----	29	7,554	−18.8	----	----	----	----	----	----	----	----	----	28	7,478	−22.4	----	30	7,399	−25.9	----
350	31	8,422	−31.9	----	28	8,494	−28.0	----	29	8,535	−25.7	----	----	----	----	----	----	----	----	----	28	8,445	−29.5	----	30	8,350	−33.3	----
300	30	9,496	−40.1	----	28	9,582	−36.2	----	27	9,628	−34.0	----	----	----	----	----	----	----	----	----	28	9,527	−37.5	----	30	9,415	−41.4	----
250	30	10,716	−49.0	----	28	10,821	−45.9	----	25	10,881	−43.5	----	----	----	----	----	----	----	----	----	27	10,758	−46.2	----	29	10,626	−49.6	----
200	29	12,159	−54.4	----	27	12,275	−55.8	----	24	12,343	−53.5	----	----	----	----	----	----	----	----	----	24	12,202	−53.6	----	29	12,069	−53.5	----
175	29	13,011	−56.0	----	25	13,109	−60.1	----	21	13,186	−58.3	----	----	----	----	----	----	----	----	----	24	13,056	−56.4	----	28	12,925	−54.0	----
150	28	13,987	−57.5	----	24	14,065	−64.6	----	15	14,129	−61.5	----	----	----	----	----	----	----	----	----	17	14,026	−59.4	----	26	13,910	−55.2	----
125	22	15,153	−59.9	----	15	15,150	−65.5	----	5	15,199	−60.4	----	----	----	----	----	----	----	----	----	8	15,182	−60.9	----	22	15,090	−56.4	----
100	9	16,541	−60.6	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	18	16,506	−56.4	----
80	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	13	17,933	−55.6	----

	Joliet, Ill. (996.0 mb.)				Lake Charles, La. (1,015.2 mb.)				Lander, Wyo. (831.7 mb.)				Las Vegas, Nev. (943.6 mb.)				Little Rock, Ark. (1,006.7 mb.)				Mazatlan, Mexico (1,008.7 mb.)				Medford, Oreg. (966.4 mb.)			
Surface	31	178	18.5	77	31	5	26.0	87	31	1,696	20.0	39	31	574	33.6	23	31	79	25.0	76	30	14	29.4	74	31	401	27.8	31
1,000	31	142	(*)	----	31	139	26.1	82	31	69	(*)	----	31	43	(*)	----	31	138	25.7	72	30	91	28.5	75	31	95	(*)	----
950	31	587	18.4	64	31	593	23.4	77	31	534	(*)	----	31	513	(*)	----	31	594	24.1	67	30	556	24.3	78	31	558	26.8	32
900	31	1,046	15.4	67	31	1,062	20.4	75	31	1,013	(*)	----	31	1,000	31.6	24	31	1,061	21.0	68	30	1,019	21.9	77	31	1,026	22.8	36
850	31	1,529	12.3	69	31	1,555	17.8	69	31	1,507	(*)	----	31	1,509	27.1	26	31	1,554	18.0	66	30	1,514	19.3	74	31	1,520	18.8	41
800	31	2,035	9.0	67	31	2,072	15.3	60	31	2,032	(*)	----	31	2,040	22.4	29	31	2,071	15.2	61	30	2,035	16.8	67	31	2,037	14.8	45
750	31	2,572	6.6	58	31	2,623	12.4	57	31	2,591	16.2	36	31	2,595	17.4	34	31	2,619	12.3	52	30	2,590	13.7	65	30	2,585	11.3	45
700	31	3,132	4.3	42	31	3,193	9.1	52	31	3,167	11.6	40	31	3,179	12.2	41	31	3,191	8.9	47	30	3,161	10.2	66	30	3,153	7.8	37
650	30	3,732	1.3	38	31	3,810	5.6	47	31	3,783	6.6	44	31	3,793	6.8	46	31	3,806	5.5	43	30	3,780	6.3	67	30	3,762	3.8	31
600	30	4,372	−2.4	39	31	4,454	2.0	41	31	4,432	1.1	49	31	4,447	1.8	46	31	4,452	1.5	45	27	4,429	2.2	70	30	4,404	−0.7	31
550	30	5,054	−6.5	37	31	5,154	−1.8	35	31	5,125	−4.4	47	31	5,144	−3.2	43	30	5,149	−3.0	47	27	5,129	−2.4	68	30	5,092	−5.4	31
500	30	5,796	−11.2	----	31	5,904	−6.2	37	31	5,869	−9.7	44	31	5,891	−8.0	40	30	5,899	−7.3	47	26	5,878	−7.1	63	29	5,834	−10.6	----
450	30	6,600	−16.5	----	31	6,732	−11.3	----	31	6,686	−15.5	----	31	6,709	−13.2	----	29	6,718	−11.9	----	25	6,703	−11.5	56	29	6,641	−16.8	----
400	30	7,473	−22.4	----	31	7,615	−17.5	----	31	7,553	−21.5	----	31	7,590	−19.2	----	28	7,604	−17.6	----	25	7,590	−17.3	57	29	7,509	−23.3	----
350	29	8,440	−29.6	----	31	8,600	−24.8	----	31	8,523	−28.8	----	31	8,569	−26.5	----	28	8,589	−24.5	----	22	8,569	−24.6	55	29	8,469	−31.0	----
300	29	9,522	−37.5	----	31	9,701	−33.4	----	31	9,606	−37.0	----	31	9,664	−34.5	----	28	9,693	−32.9	----	22	9,674	−32.9	60	29	9,543	−39.5	----
250	29	10,757	−46.3	----	31	10,954	−43.4	----	31	10,842	−46.2	----	31	10,913	−44.0	----	28	10,950	−42.6	----	21	10,931	−42.8	----	29	10,765	−48.5	----
200	29	12,214	−53.8	----	31	12,416	−55.4	----	30	12,300	−55.2	----	30	12,372	−55.0	----	28	12,419	−54.3	----	15	12,390	−54.8	----	29	12,210	−54.4	----
175	28	13,059	−56.9	----	31	13,254	−62.1	----	30	13,145	−58.9	----	28	13,208	−61.1	----	28	13,262	−60.4	----	13	13,223	−61.0	----	28	13,061	−55.8	----
150	27	14,023	−59.7	----	29	14,195	−68.5	----	25	14,115	−63.0	----	22	14,145	−66.5	----	25	14,203	−66.1	----	7	14,181	−67.2	----	23	14,039	−58.1	----
125	24	15,150	−61.6	----	17	15,279	−72.9	----	18	15,229	−65.2	----	13	15,247	−69.7	----	15	15,300	−70.8	----	----	----	----	----	19	15,200	−60.6	----
100	15	16,527	−62.9	----	----	----	----	----	5	16,574	−65.1	----	----	----	----	----	----	----	----	----	----	----	----	----	9	16,582	−61.6	----
80	12	17,924	−60.3	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

	Merida, Mexico (1,011.3 mb.)				Miami, Fla. (1,016.9 mb.)				Nantucket, Mass. (1,014.3 mb.)				Nashville, Tenn. (995.9 mb.)				North Platte, Nebr. (918.9 mb.)				Oakland, Calif. (1,013.7 mb.)				Ogden, Utah (864.3 mb.)			
Surface	31	27	27.0	77	31	4	25.5	87	30	14	17.2	95	31	180	22.7	75	31	849	21.0	65	31	2	16.1	77	31	1,355	23.9	41
1,000	31	126	26.0	77	31	152	25.7	82	30	135	17.7	90	31	143	(*)	----	31	105	(*)	----	31	117	14.9	80	31	52	(*)	----
950	31	578	23.9	72	31	606	22.7	83	30	576	16.7	78	31	592	21.4	69	31	558	(*)	----	31	568	17.5	52	31	520	(*)	----
900	31	1,050	21.0	73	31	1,074	19.9	78	30	1,035	14.5	73	31	1,057	18.3	71	31	1,029	22.2	56	31	1,019	22.3	20	31	1,002	(*)	----
850	31	1,544	18.1	71	31	1,565	17.0	73	30	1,517	11.6	73	31	1,545	15.2	68	31	1,524	19.2	54	31	1,514	21.0	----	31	1,501	25.3	32
800	30	2,058	14.9	67	31	2,081	13.9	71	30	2,022	8.8	66	31	2,057	12.4	63	31	2,043	16.4	54	31	2,034	18.1	----	31	2,031	21.7	31
750	30	2,607	11.9	65	30	2,625	10.9	69	29	2,563	6.4	61	31	2,602	9.7	57	31	2,594	13.5	49	31	2,587	14.9	----	31	2,588	17.1	33
700	30	3,181	8.7	61	30	3,197	7.6	64	29	3,119	3.6	52	31	3,167	6.8	52	31	3,167	9.6	51	31	3,161	11.1	----	31	3,169	12.2	36
650	30	3,794	5.0	58	30	3,807	4.2	63	29	3,719	−0.5	46	31	3,775	3.4	49	31	3,781	5.2	50	31	3,775	7.0	----	31	3,783	6.9	40
600	28	4,439	1.3	55	30	4,452	0.4	61	29	4,357	−3.1	44	31	4,418	−0.4	49	31	4,426	0.6	48	31	4,426	2.5	----	31	4,436	1.4	45
550	28	5,136	−3.0	55	29	5,145	−3.6	57	28	5,043	−6.7	43	31	5,112	−4.3	44	31	5,121	−4.3	51	31	5,122	−2.3	----	31	5,126	−4.1	46
500	28	5,884	−7.3	56	29	5,893	−8.3	58	27	5,782	−11.2	45	31	5,855	−9.0	46	30	5,863	−9.1	49	31	5,872	−7.7	----	30	5,875	−9.4	46
450	28	6,708	−12.4	59	29	6,712	−13.2	61	27	6,588	−16.6	----	30	6,675	−13.5	----	30	6,680	−14.4	48	30	6,689	−13.7	----	30	6,689	−14.7	43
400	28	7,589	−18.0	57	29	7,592	−19.0	59	26	7,450	−22.5	----	30	7,552	−19.3	----	30	7,554	−19.9	44	29	7,567	−20.3	----	30	7,563	−20.8	----
350	28	8,573	−25.3	----	29	8,572	−26.4	----	26	8,425	−29.6	----	30	8,530	−26.3	----	30	8,532	−26.4	----	29	8,542	−27.5	----	30	8,535	−28.0	----
300	28	9,672	−34.0	----	28	9,667	−34.9	----	26	9,506	−37.8	----	30	9,626	−34.8	----	30	9,627	−34.4	----	29	9,633	−35.6	----	30	9,624	−36.2	----
250	27	10,922	−44.1	----	28	10,912	−45.1	----	26	10,738	−46.5	----	28	10,873	−44.4	----	30	10,877	−44.0	----	28	10,881	−44.3	----	30	10,864	−45.4	----
200	27	12,378	−55.9	----	25	12,364	−56.8	----	26	12,190	−54.5	----	25	12,324	−54.7	----	30	12,338	−54.7	----	27	12,345	−52.6	----	27	12,318	−54.5	----
175	22	13,213	−62.1	----	23	13,201	−62.6	----	24	13,045	−57.3	----	24	13,169	−59.9	----	29	13,181	−59.8	----	25	13,198	−56.4	----	26	13,170	−58.8	----
150	13	14,161	−67.4	----	20	14,141	−67.9	----	23	14,016	−59.7	----	20	14,113	−64.5	----	25	14,138	−64.1	----	22	14,168	−60.1	----	22	14,118	−62.9	----
125	----	----	----	----	11	15,217	−71.4	----	20	15,147	−61.4	----	11	15,235	−68.6	----	13	15,255	−66.6	----	10	15,291	−61.7	----	14	15,222	−64.5	----
100	----	----	----	----	5	16,518	−70.7	----	16	16,527	−60.3	----	----	----	----	----	----	----	----	----	----	----	----	----	8	16,574	−65.0	----
80	----	----	----	----	----	----	----	----	8	17,910	−57.9	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

See footnotes at end of table.

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during August 1946*—Continued.

Standard pressure surface (mb.)	Oklahoma City, Okla. (969.1 mb.)				Omaha, Nebr. (979.7 mb.)				Phoenix, Ariz. (970.1 mb.)				Pittsburgh, Pa. (973.0 mb.)				Portland, Maine (1,013.1 mb.)				Rapid City, S. Dak. (905.0 mb.)				St. Paul, Minn (989.3 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	391	27.3	59	31	308	22.2	76	31	339	33.3	41	29	382	18.4	72	31	20	16.2	90	31	981	19.3	60	31	225	20.3	66
1,000	31	110	(*)	----	31	128	(*)	----	31	63	(*)	----	29	143	(*)	----	31	131	17.3	86	31	106	(*)	----	31	131	(*)	----
950	31	569	27.6	52	31	579	21.3	68	31	533	34.1	33	29	586	17.9	68	31	572	16.2	76	31	562	(*)	----	31	577	19.1	62
900	31	1,045	24.9	51	31	1,043	19.0	66	31	1,016	30.2	35	29	1,046	15.1	68	31	1,028	13.6	75	31	1,029	19.2	58	31	1,037	15.9	68
850	31	1,544	21.5	52	31	1,533	16.2	64	31	1,523	25.8	40	29	1,528	11.8	73	31	1,507	10.3	79	31	1,521	18.5	52	31	1,520	12.4	73
800	31	2,067	17.7	54	31	2,047	13.9	58	31	2,052	21.2	46	29	2,033	8.4	74	31	2,010	7.2	79	31	2,037	14.9	55	31	2,026	9.3	69
750	31	2,616	13.8	53	31	2,594	10.9	51	31	2,611	16.5	52	29	2,568	5.1	67	31	2,542	4.5	74	31	2,587	11.5	56	31	2,564	6.5	57
700	31	3,194	10.5	46	31	3,161	7.6	52	31	3,190	11.7	58	29	3,124	2.9	51	31	3,099	1.7	68	31	3,154	8.2	50	31	3,123	3.9	49
650	31	3,807	6.5	47	31	3,773	3.9	49	31	3,808	7.0	60	28	3,722	−0.2	47	31	3,696	−1.3	58	31	3,766	4.0	49	31	3,722	0.4	46
600	30	4,460	2.3	51	31	4,415	−0.2	47	31	4,459	2.3	62	28	4,355	−3.7	44	31	4,328	−4.5	53	31	4,407	−0.7	53	31	4,361	−3.2	37
550	30	5,158	−2.0	49	30	5,104	−4.6	47	31	5,159	−2.1	63	28	5,039	−7.9	39	31	5,010	−8.4	47	31	5,097	−5.6	50	31	5,043	−7.2	32
500	29	5,910	−6.5	48	29	5,849	−9.7	43	31	5,909	−6.4	56	28	5,772	−12.4	----	31	5,742	−12.9	49	31	5,837	−10.7	40	31	5,781	−12.0	33
450	29	6,738	−11.5	42	29	6,664	−14.9	43	30	6,738	−11.4	46	28	6,574	−17.7	----	31	6,545	−18.3	47	30	6,648	−15.8	----	30	6,581	−17.3	----
400	29	7,222	−17.0	----	28	7,536	−20.9	----	30	7,621	−17.0	45	28	7,440	−23.8	----	31	7,406	−24.6	----	30	7,519	−22.1	----	29	7,452	−23.7	----
350	29	8,610	−24.0	----	27	8,509	−27.8	----	30	8,609	−24.1	----	27	8,401	−30.9	----	31	8,364	−31.9	----	30	8,486	−29.1	----	29	8,414	−30.8	----
300	29	9,715	−32.5	----	27	9,598	−35.9	----	30	9,714	−32.6	----	27	9,477	−38.5	----	31	9,435	−40.0	----	30	9,570	−37.1	----	29	9,489	−39.1	----
250	29	10,974	−42.5	----	26	10,848	−44.6	----	30	10,973	−42.5	----	27	10,707	−46.5	----	31	10,656	−48.2	----	29	10,807	−45.8	----	29	10,716	−47.9	----
200	29	12,444	−54.2	----	26	12,309	−54.4	----	28	12,445	−54.6	----	27	12,170	−51.6	----	31	12,105	−53.3	----	28	12,269	−54.0	----	27	12,159	−54.9	----
175	28	13,287	−60.8	----	26	13,155	−58.7	----	26	13,284	−61.2	----	27	13,031	−54.2	----	30	12,964	−54.7	----	27	13,119	−57.6	----	27	13,009	−56.6	----
150	23	14,242	−66.8	----	21	14,110	−62.2	----	21	14,227	−67.7	----	24	14,023	−56.8	----	27	13,932	−57.0	----	23	14,088	−60.9	----	26	13,982	−58.2	----
125	13	15,347	−71.2	----	14	15,253	−65.4	----	6	15,315	−70.6	----	20	15,157	−58.6	----	21	15,077	−58.0	----	15	15,217	−63.4	----	23	15,117	−60.2	----
100					6	16,588	−65.3	----					15	16,541	−58.8	----	9	16,494	−58.8	----	6	16,629	−63.2	----	15	16,505	−59.6	----
80													6	17,983	−58.7	----	5	17,914	−58.2	----					10	17,918	−59.3	----

Standard pressure surface (mb.)	San Antonio, Tex. (985.9 mb.)				San Juan, P. R. (1,015.8 mb.)				Santa Maria, Calif. (1,005.5 mb.)				Sault Ste. Marie, Mich. (989.6 mb.)				Spokane, Wash. (944.5 mb.)				Swan Island, West Indies [1] (.... mb.)				Tacubaya, Mexico (775.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	30	240	27.9	64	31	15	26.5	82	31	71	14.1	87	31	221	14.3	87	30	598	24.2	31	----	----	----	----	31	2,306	15.6	75
1,000	30	113	(*)	----	31	154	25.5	83	31	118	13.3	87	31	132	(*)	----	30	93	(*)	----	----	----	----	----	31	77	(*)	----
950	30	571	26.3	67	31	609	22.4	87	31	566	18.4	65	31	571	15.5	72	30	549	(*)	----	----	----	----	----	31	541	(*)	----
900	30	1,045	23.4	69	31	1,074	19.4	85	31	1,022	23.2	27	31	1,025	12.6	74	30	1,019	22.2	31	----	----	----	----	31	1,014	(*)	----
850	30	1,542	20.4	70	31	1,565	16.7	77	31	1,518	21.6	25	31	1,502	9.3	75	30	1,511	17.8	35	----	----	----	----	31	1,509	(*)	----
800	30	2,064	17.2	68	31	2,081	14.3	64	31	2,041	18.5	28	31	2,002	6.0	73	30	2,025	13.5	40	----	----	----	----	31	2,039	(*)	----
750	30	2,614	14.4	56	31	2,627	11.4	58	31	2,597	14.8	27	31	2,534	3.7	59	30	2,568	8.9	44	----	----	----	----	31	2,592	13.6	76
700	30	3,193	11.2	45	31	3,198	8.0	51	31	3,169	10.8	----	31	3,087	1.0	50	30	3,130	4.8	43	----	----	----	----	31	3,164	9.5	81
650	30	3,812	7.7	42	31	3,809	4.4	48	31	3,784	6.5	----	31	3,683	−2.3	46	30	3,731	0.7	44	----	----	----	----	31	3,782	5.3	86
600	29	4,463	3.8	40	31	4,454	1.3	37	31	4,431	2.0	----	31	4,308	−5.6	43	30	4,369	−3.2	39	----	----	----	----	31	4,427	1.1	90
550	29	5,171	−0.4	34	31	5,155	−2.1	25	31	5,127	−2.6	----	30	4,994	−9.8	38	30	5,052	−7.5	40	----	----	----	----	31	5,124	−3.0	88
500	29	5,921	−4.8	32	29	5,899	−6.4	----	31	5,876	−7.7	----	30	5,719	−14.8	----	30	5,787	−12.5	36	----	----	----	----	31	5,873	−7.3	81
450	28	6,753	−10.0	----	28	6,721	−11.9	----	31	6,693	−13.6	----	30	6,512	−20.3	----	30	6,589	−18.4	36	----	----	----	----	31	6,695	−11.9	71
400	26	7,638	−15.8	----	27	7,603	−18.1	----	31	7,572	−20.0	----	30	7,371	−26.7	----	30	7,451	−24.9	----	----	----	----	----	30	7,582	−17.2	66
350	26	8,630	−22.8	----	26	8,584	−25.5	----	31	8,549	−27.0	----	30	8,320	−33.8	----	30	8,407	−32.5	----	----	----	----	----	30	8,569	−24.3	----
300	26	9,741	−31.2	----	25	9,683	−33.7	----	31	9,640	−35.1	----	30	9,382	−42.0	----	30	9,475	−40.8	----	----	----	----	----	30	9,674	−32.8	----
250	26	11,007	−41.0	----	25	10,934	−43.4	----	29	10,889	−43.8	----	30	10,593	−50.2	----	30	10,690	−49.7	----	----	----	----	----	29	10,930	−42.9	----
200	25	12,488	−52.6	----	25	12,400	−54.2	----	27	12,360	−53.2	----	27	12,051	−52.3	----	29	12,131	−54.5	----	----	----	----	----	24	12,395	−55.0	----
175	23	13,339	−58.8	----	22	13,243	−59.6	----	23	13,207	−58.7	----	23	12,924	−52.6	----	28	12,983	−54.5	----	----	----	----	----	22	13,239	−61.8	----
150	17	14,290	−64.9	----	18	14,207	−63.9	----	19	14,174	−63.9	----	25	13,915	−54.3	----	21	13,958	−56.1	----	----	----	----	----	10	14,186	−68.0	----
125	5	15,399	−70.5	----	6	15,325	−66.7	----	17	15,283	−67.8	----	22	15,076	−55.8	----	10	15,124	−57.3	----	----	----	----	----	----	----	----	----
100									6	16,613	−67.8	----	15	16,499	−56.5	----					----	----	----	----	----	----	----	----
80													10	17,923	−56.0	----					----	----	----	----	----	----	----	----

Standard pressure surface (mb.)	Tampa, Fla. (1,016.1 mb.)				Tatoosh Island, Wash. (1,014.9 mb.)				Toledo, Ohio (993.8 mb.)				Washington, D. C. (1,013.5 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity	Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	9	25.8	85	31	31	12.6	93	31	191	17.8	76	31	25	21.3	80
1,000	31	150	25.5	83	31	155	12.3	89	31	137	(*)	----	31	141	21.4	75
950	31	601	22.9	81	31	592	13.8	71	31	580	18.5	65	31	587	19.2	70
900	31	1,072	20.2	77	31	1,042	13.2	61	31	1,040	15.4	65	31	1,048	15.9	73
850	31	1,564	17.3	74	31	1,522	11.7	48	31	1,523	11.8	69	31	1,532	12.6	75
800	31	2,080	14.2	70	31	2,027	9.3	40	31	2,027	8.3	70	31	2,039	9.4	75
750	31	2,621	10.8	71	31	2,565	6.4	37	31	2,561	5.0	64	31	2,579	6.2	73
700	31	3,195	7.5	70	31	3,121	3.2	36	31	3,119	2.6	51	31	3,135	3.3	63
650	31	3,803	4.1	70	30	3,717	−0.3	33	30	3,717	0.1	45	30	3,736	0.5	48
600	31	4,451	0.4	70	30	4,352	−4.1	30	30	4,354	−3.2	----	30	4,372	−2.9	45
550	31	5,140	−3.4	62	30	5,031	−8.5	31	30	5,039	−7.1	----	30	5,060	−6.6	45
500	31	5,893	−7.8	62	30	5,765	−13.4	----	30	5,775	−11.7	----	30	5,797	−11.2	39
450	31	6,711	−12.7	61	30	6,563	−18.7	----	30	6,578	−17.4	----	30	6,605	−16.4	----
400	31	7,594	−18.6	61	30	7,426	−24.9	----	30	7,447	−23.3	----	29	7,474	−22.7	----
350	30	8,577	−25.5	----	30	8,382	−32.3	----	30	8,410	−30.6	----	29	8,440	−29.8	----
300	30	9,676	−33.9	----	28	9,454	−40.2	----	30	9,485	−38.7	----	29	9,519	−38.0	----
250	30	10,926	−44.2	----	28	10,673	−49.2	----	30	10,715	−47.0	----	29	10,752	−46.1	----
200	29	12,380	−56.6	----	25	12,118	−54.2	----	30	12,171	−53.0	----	27	12,214	−54.0	----
175	28	13,211	−63.4	----	23	12,965	−53.3	----	30	13,026	−55.4	----	27	13,065	−57.0	----
150	26	14,142	−69.4	----	16	13,951	−54.0	----	27	14,007	−58.2	----	25	14,029	−60.5	----
125	15	15,215	−72.2	----	11	15,131	−55.3	----	21	15,149	−60.9	----	19	15,133	−61.8	----
100	8	16,528	−72.0	----	----	----	----	----	12	16,524	−60.6	----	16	16,506	−61.4	----
80	----	----	----	----	----	----	----	----	7	17,903	−59.2	----	8	17,920	−60.2	----

[1] Data not yet received.

*Temperature and relative humidity data for this level are not available or are available only for certain days. See note entitled "Change in Summarization of Radiosonde Data," p. 6, in the January 1946 issue of the MONTHLY WEATHER REVIEW.

NOTE.—All observations scheduled between 0300 and 0500, G. C. T., except at Mazatlan and Merida, where they are taken near 0200, G. C. T.

"Number of observations" refers to those of dynamic height only. (In a few cases temperature or humidity data may be missing for one or more standard pressure surfaces of some observations.) Relative humidity data are not published for standard pressure surfaces having a corresponding mean temperature below −20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 observations at the surface or 5 observations at a standard pressure level.

LATE REPORT FOR SWAN ISLAND, WEST INDIES

TABLE 1.—*Mean dynamic height (geopotential) in units of 0.98 dynamic meter, temperature in degrees centigrade, and relative humidity in percent, for standard pressures, as obtained by radiosondes during July 1946*

STATIONS AND MEAN SURFACE PRESSURES

Standard pressure surface (mb.)	Swan Island, West Indies (1,014.2 mb.)				Standard pressure surface (mb.)	Swan Island, West Indies (1,014.2 mb.)			
	Number of observations	Dynamic height	Temperature	Relative humidity		Number of observations	Dynamic height	Temperature	Relative humidity
Surface	31	10	26.9	82	500	28	5,871	−8.3	39
1,000	31	135	26.0	82	450	28	6,686	−13.4	41
950	31	590	22.7	81	400	28	7,570	−19.2	42
900	31	1,057	19.7	76	350	28	8,549	−26.1	.....
850	31	1,548	16.9	69	300	28	9,645	−34.5	.....
800	31	2,063	14.4	57	250	28	10,892	−44.5	.....
750	31	2,606	11.3	49	200	28	12,346	−55.8	.....
700	31	3,179	7.6	47	175	27	13,180	−62.5	.....
650	31	3,788	3.9	46	150	20	14,122	−68.2	.....
600	30	4,432	0.2	43	125	8	15,214	−71.5	.....
550	29	5,119	−3.8	39					

TABLE 2.—*Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.), during August 1946. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second*

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (100 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (150 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,198 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	152	3.9	31	216	1.8	31	250	0.7	31	9	1.4	31	271	1.5	31	323	4.1	31	130	5.7	29	248	2.8	30	232	1.2	31	179	1.3	25	288	0.7	30	12	2.1	31	192	1.1
500							31	264	1.1										31	136	8.1	29	254	3.3	30	211	1.8	31	183	2.5	25	284	1.5						
1,000	31	150	4.8				31	293	2.0				31	275	2.0	31	324	4.3	31	144	7.4	28	286	2.1	30	239	2.0	31	258	2.0	24	288	2.8						
1,500	29	153	4.7				31	304	2.9	31	340	1.7	31	254	2.5	31	322	3.8	31	154	5.9	27	268	3.9	27	252	4.0	31	272	2.8	22	298	3.0				31	168	1.3
2,000	29	161	4.7	31	218	1.8	29	309	3.2	31	315	1.7	29	276	3.6	31	302	2.2	28	158	4.8	22	273	4.5	24	273	4.8	29	285	3.7	21	296	4.1	30	30	3.0	31	156	1.4
2,500	28	167	4.3	31	230	1.6	27	311	3.0	29	281	3.0	27	277	6.0	31	273	4.2	26	156	3.9	16	275	5.8	18	276	5.6	28	285	4.7	15	293	5.8	29	43	2.2	31	155	1.3
3,000	28	168	4.3	31	238	0.7	25	306	3.2	29	273	5.0	27	289	6.9	31	250	5.0	26	146	3.4	12	290	5.2	18	278	5.8	27	285	6.1	11	299	7.3	28	48	0.8	31	131	0.8
4,000	25	168	2.4	29	324	0.9	23	308	5.4	26	267	9.4	25	289	11.8	31	244	8.6	26	138	2.5				12	280	5.9	21	277	6.4				26	286	2.1	28	170	1.7
5,000	21	76	0.9	29	246	1.8	20	304	6.9	23	268	12.1	23	294	15.2	30	243	11.4	22	155	3.4							13	264	8.8				22	274	5.5	27	198	2.5
6,000	18	80	0.5	27	239	3.2	16	303	9.5	18	276	14.5	19	296	18.5	29	247	11.2	22	157	3.4							10	264	8.4				17	272	8.2	25	196	2.4
8,000	18	213	1.9	20	247	4.7				17	269	18.1	18	290	21.0	23	250	13.8	20	99	5.0													10	265	14.8	16	179	4.1
10,000	15	209	3.0	19	242	7.8							15	283	23.9	19	244	18.6	17	86	6.2																10	164	3.9
12,000	12	194	2.2	14	247	9.6							11	275	25.8	16	251	22.2	15	72	6.8																		
14,000				10	251	9.1										12	256	24.2	13	93	8.7																		

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,475 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (416 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	205	2.1	31	240	2.6	31	62	0.4	31	10	1.2	30	120	1.4	31	245	1.4	31	173	2.0	31	148	1.2	31	350	1.1	31	134	2.6	30	257	0.7	31	338	1.5	30	153	0.4
500							31	192	0.7				30	175	1.4	31	279	1.5				31	157	1.5	31	331	1.0	31	144	3.3	30	259	1.6	31	328	1.4	30	259	1.4
1,000							31	232	1.6	31	332	1.1	28	249	2.5	29	267	1.7	31	189	3.6	30	164	0.5	31	322	2.4	31	160	1.8	30	293	2.1	31	308	2.1	28	274	3.3
1,500				31	242	2.8	30	268	2.6	31	276	1.6	28	263	3.1	27	285	2.7	31	192	3.7	29	272	1.0	31	278	1.9	31	168	0.6	28	313	3.4	30	304	3.4	27	274	3.9
2,000	31	206	2.3	31	256	1.9	27	288	4.2	31	258	2.8	25	269	4.5	25	297	3.0	31	196	4.9	24	317	2.6	31	243	1.9	31	81	0.4	26	325	4.1	30	312	4.2	23	264	4.9
2,500	31	218	3.9	31	257	1.8	24	290	6.2	29	255	3.9	21	268	4.8	21	304	6.5	31	203	4.6	22	318	3.8	31	210	3.5	30	117	0.2	25	324	4.5	29	310	5.7	18	275	5.9
3,000	31	214	3.9	31	270	2.8	20	296	8.2	26	251	5.0	20	260	5.6	19	309	7.7	30	206	4.4	21	320	4.7	30	205	5.0	30	113	0.5	25	324	4.2	28	306	7.3	13	282	5.8
4,000	30	223	4.3	30	270	3.1	15	286	10.9	21	259	6.3	17	259	4.5	13	304	10.8	28	215	5.9	15	308	5.5	30	216	6.1	28	147	0.6	17	331	3.5	25	306	8.8			
5,000	27	228	6.0	29	262	4.7	10	295	11.6	16	280	10.5	15	265	4.5	10	316	13.5	28	226	5.0	15	313	6.3	30	221	7.5	24	184	2.2	13	318	4.9	20	308	10.5			
6,000	24	232	7.5	27	266	5.9				12	275	12.6	12	276	5.2				24	233	6.2	14	310	7.9	28	233	9.2	23	175	2.4	10	317	5.8	15	304	11.6			
8,000	15	241	14.8	20	256	8.7													23	231	9.0				23	245	11.7	13	65	1.7				11	297	15.1			
10,000	12	241	21.4	15	250	14.6													19	233	13.0				17	252	12.4												
12,000				10	257	22.6													11	229	17.4																		
14,000																																							

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	31	279	5.4	31	184	4.1	31	142	0.9	31	264	1.1	31	73	2.3	30	95	0.2	30	268	1.8	30	130	4.0	31	268	3.7	30	282	2.4	31	292	2.0	31	275	0.5	31	277	0.8
500	31	269	4.1	31	181	4.2	31	210	1.1	31	252	1.8				30	275	0	30	259	2.0	30	134	4.6	31	285	3.0	30	278	2.9	31	320	1.7				31	264	1.9
1,000	29	235	4.0	31	184	4.3	30	216	1.7	31	247	2.2	31	73	2.3	29	274	1.8	30	265	3.6	30	141	5.7	31	265	2.1	28	274	4.1	25	340	1.5	31	231	1.7	31	271	2.3
1,500	29	224	4.0	29	186	4.9	27	246	3.4	31	252	2.2	31	68	2.2	28	298	4.0	29	261	4.3	28	145	5.7	31	247	1.4	25	270	5.4	24	23	0.4	31	240	2.1	28	271	3.7
2,000	29	207	4.0	28	191	4.2	21	261	5.4	31	272	2.1	30	54	0.5	26	303	6.2	24	271	6.2	27	152	5.2	30	213	1.0	23	268	5.9	21	181	0.6	29	240	2.9	24	286	5.2
2,500	29	203	4.0	27	192	3.8	21	279	6.8	30	263	2.4	27	271	2.4	23	312	8.1	23	275	6.9	22	156	4.5	30	215	2.2	22	276	6.8	20	187	1.9	26	237	3.7	23	279	6.6
3,000	29	201	4.2	26	209	3.3	19	292	8.7	30	245	2.2	22	272	6.0	20	309	9.5	19	281	6.5	20	154	3.7	28	209	1.7	18	288	6.3	18	198	3.5	24	246	4.2	20	281	7.3
4,000	29	211	4.9	21	262	3.5	17	301	11.4	29	209	1.6	21	292	10.0	16	316	11.4	14	306	9.3	16	154	2.3	26	204	2.2	14	305	7.5	18	220	4.6	24	249	7.4	20	282	9.6
5,000	27	224	6.4	17	286	5.6	14	295	14.0	29	192	2.4	19	287	13.3	12	322	10.8	13	303	13.5	12	102	1.7	25	224	2.0	11	312	9.0	16	228	5.9	22	252	9.5	14	285	11.7
6,000	27	223	7.4	14	284	6.5				29	185	2.5	18	284	15.6	12	317	12.6							23	219	3.0				15	236	7.1	21	255	13.8	12	276	15.3
8,000	25	230	8.2							21	177	4.1	16	281	17.0										20	205	5.3				14	244	8.3	16	258	18.2			
10,000	24	241	13.1							19	194	6.1													17	211	10.3				10	240	12.3	11	253	20.8			
12,000	19	229	21.7							14	198	7.1																										
14,000	13	240	22.9																																				

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during August 1946*

Section	Surface to 2,500 meters (m. s. l.)					Above 2,501 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	34.0	nne.	1,904	3	Nantucket, Mass.	38.4	wnw.	4,112	9	Columbus, Ohio	61.0	n.	11,314	12	Nantucket, Mass.
East-Central [2]	24.1	wnw.	2,500	10	Nashville, Tenn.	26.2	nw.	5,000	8	Louisville, Ky.	60.0	wsw.	13,070	24	Hatteras, N. C.
Southeast [3]	18.1	w.	2,448	11	Birmingham, Ala.	20.8	wnw.	5,000	10	Birmingham, Ala.	39.2	w.	9,304	30	Atlanta, Ga.
North-Central [4]	38.9	w.	2,472	7	Williston, N. Dak.	40.6	wsw.	4,625	8	Bismarck, N. Dak.	63.5	n.	14,792	1	Marquette, Mich.
Central [5]	29.7	sw.	2,005	12	Dodge City, Kans.	41.0	w.	4,237	9	Moline, Ill.	66.0	wnw.	14,666	29	Springfield, Mo.
South-Central [6]	28.7	sw.	1,386	13	Oklahoma City, Okla.	25.4	nw.	4,493	30	Little Rock, Ark.	44.4	wnw.	12,686	29	Tulsa, Okla.
Northwest [7]	42.4	nw.	1,143	7	Ellensburg, Wash.	39.1	sw.	5,000	6	Missoula, Mont.	62.5	w.	17,949	29	Great Falls, Mont.
West-Central [8]	22.7	sse.	1,888	3	Grand Junction, Colo.	27.4	w.	4,667	16	Rock Springs, Wyo.	55.0	wsw.	13,650	28	Oakland, Calif.
Southwest [9]	22.8	e.	1,846	2	Albuquerque, N. Mex.	25.0	s.	3,595	30	Las Vegas, Nev.	45.2	sw.	14,066	30	Fresno, Calif.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS FOR AUGUST 1946

C. R. JORDAN

Precipitation during August was again spotty, with amounts averaging more than twice the usual amounts on the New England coast and in sections of Florida, Texas, Arizona, Colorado, Missouri, and Illinois. It was dry in the States along the Pacific coast and in the northern and eastern sections of the country, except in northern Michigan, New England, northern Florida, and the southern parts of Georgia and Alabama.

There was no widespread flooding during the month, but local floods caused considerable damage in the vicinity of St. Louis, Mo., and in southern Maine.

Local flood in southern Maine.—An intense storm on August 27, centered over York, Maine, producing an estimated 8 inches of rain between sunset and midnight that resulted in flooding of York Beach and small streams of the area around York. Tides were above normal at the time, which interfered with natural run-off and aggravated flood conditions.

Flash flood in St. Louis region.—About the middle of August phenomenally heavy rains occurred over portions of the Osage, Gasconade, and Meramec Basins, extending eastward over St. Louis and southern Illinois. Total precipitation ranged from 6 to more than 16 inches over a period of 3 or 4 days; total rainfall for August was the greatest of record in some parts of Missouri. Property damage was heavy in the St. Louis area and several persons lost their lives. Flash floods were reported in the Lake of the Ozarks region and in the Gasconade and upper Meramec River Basins. The Missouri River exceeded flood stage slightly at St. Charles, Mo. The Mississippi River at, and for some distance below, the mouth of the Missouri rose rapidly, but the stream did not reach flood stage.

Western Gulf of Mexico drainage.—Heavy rains fell over the lower-central sections of the Nueces, San Antonio, and Guadalupe Rivers from August 28–31. Incomplete reports indicate that 6 to 10 inches of rain fell over a strip 100 miles long by 30 to 40 miles wide, crossing the watersheds northward from Three Rivers, Tex., to Luling, Tex. The heaviest fall reported was 11.82 inches at Chestohowa, Tex. Heavy overflow resulted along the San Antonio River from Falls City to Goliad and also along the upper Atascosa River, a tributary of the Nueces. No record stages occurred and losses were relatively small.

FLOOD STAGE REPORT FOR AUGUST 1946

[All dates in August unless otherwise specified]

River and station	Flood stage	Above flood stages—dates		Crest [1]	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE					
Cape Fear: Lock No. 2, Elizabethtown, N. C.	*Feet* 20	26	28	*Feet* 20.8	27
Waccamaw: Conway, S. C.	7	31	(2)	7.6	Sept. 3
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.	15	2	4	16.2	3
		7	13	17.6	10
Choctawatchee:					
Geneva, Ala.	23	7	9	26.8	8
Caryville, Fla.	12	7	11	14.0	9
Tombigbee:					
Lock No. 3	33	7	12	41.6	9
Lock No. 1	31	9	12	31.6	10–11
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Meramec: Sullivan, Mo.	11	16	16	15.0	16
Missouri Basin					
Solomon: Beloit, Kans.	18	26	28	20.2	27
Osage: La Cygne, Kans.	25	14	15	25.5	15
Osage:					
Warsaw, Mo.	31	13	17	35.2	14
Lakeside (Bagnell Dam), Mo.	60	13	20	63.9	15
St. Thomas, Mo.	23	14	18	31.5	15
Gasconade: Jerome, Mo.	15	14	16	21.4	15
Missouri: St. Charles, Mo.	25	16	16	25.3	16
WEST GULF OF MEXICO DRAINAGE					
Cibolo Creek: Falls City, Tex.	26	29	29	32.5	29
San Antonio: Goliad, Tex.	35	31	(2)	.....	.....
Guadalupe: Gonzales, Tex.	20	30	(2)	22.4	31
Nueces: Three Rivers, Tex.	37	31	(2)	.....	.....

[1] Provisional.
[2] Continued at end of month.

CLIMATOLOGICAL DATA FOR AUGUST 1946

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see Review, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature								Precipitation					
			Monthly extremes								Greatest monthly		Least monthly	
	Section average	Departure from the normal	Station	Highest	Date	Station	Lowest	Date	Section average	Departure from the normal	Station	Amount	Station	Amount
	°F.	°F.		°F.			°F.		In.	In.		In.		In.
Alabama	78.4	−1.4	Talladega	100	24	Valley Head	45	31	4.87	+.12	Bay Minette	11.91	Gadsden	0.71
Arizona	79.2	+.6	Mohawk	120	1 2	2 stations	38	1 28	2.88	+.54	Tonto Creek Fish Hatchery.	8.31	Ehrenberg	.05
Arkansas	79.0	−1.1	Booneville	109	17	2 stations	43	1 30	1.87	−1.68	Glenwood	6.48	2 stations	.00
California	72.7	+.4	Cow Creek	123	1 2	Truckee R. S.	26	7	.05	−.05	Imperial	2.16	207 stations	.00
Colorado	65.5	−.2	Las Animas	105	6	Pearl	21	9	2.52	+.57	Cheyenne Wells	7.86	Olathe	.69
Florida	81.4	−.1	2 stations	99	1 1	5 stations	62	1 3	6.76	−.29	Felismere	13.11	Fort Lauderdale	2.23
Georgia	78.4	−1.1	Washington	101	19	Tallapoosa	46	31	3.60	−1.60	Camilla	9.83	Fairmount	.20
Idaho	66.8	+.5	3 stations	108	1 19	Landmark	19	7	.61	−.02	Gibbonsville	2.68	2 stations	T
Illinois	70.7	−3.8	Mount Vernon	99	1	Danville	37	30	5.97	+2.55	East St. Louis	21.71	Cullom	1.14
Indiana	69.6	−4.0	Tell City	100	5	Frankfort	33	30	3.31	−.03	Cypress	9.71	Rochester	.80
Iowa	68.9	−3.3	Hawarden	100	1	Sibley	33	1 29	3.56	−.07	Audubon	12.22	Webster City	.81
Kansas	77.8	−.2	4 stations	114	7	3 stations	41	29	2.97	−.21	Overbrook (near)	10.18	Norton	.22
Kentucky	70.7	−5.1	2 stations	96	1 5	Clermont	36	31	4.42	+.71	Fords Ferry	10.48	Grayson	1.42
Louisiana	81.3	−.6	2 stations	101	1 12	Tallulah	52	31	4.02	−1.14	Naval Ammunition Depot.	9.46	Winnsboro	.38
Maryland-Delaware	70.0	−3.4	Cumberland, Md	95	5	Oakland, Md	35	28	4.44	−.06	Cheltenham, Md	7.43	Aberdeen, Md	2.76
Michigan	64.8	−2.2	3 stations	95	1 3	Kenton	29	29	2.23	−.54	Mass	6.34	Eaton Rapids	.31
Minnesota	65.6	−2.0	Crookston	100	2	Meadowlands	32	1 23	1.84	−1.44	Tower	6.68	Willmar Airport	.15
Mississippi	80.0	−.7	3 stations	99	1 9	Holly Springs	46	31	2.85	−1.31	Bay St. Louis	11.21	Swan Lake	.17
Montana	64.4	−.6	Fairview	106	6	Wisdom	19	18	.87	−.21	Outlook	3.20	Harlem	.06
Nebraska	72.0	−1.4	Alma	108	7	2 stations	35	29	2.20	−.49	Alma	5.41	Oxford	.23
Nevada	73.0	+2.3	Overton	118	2	2 stations	33	1 7	.42	−.07	Kyle Canyon R. S.	4.56	12 stations	.00
New England	64.7	−2.3	Farmington, Maine	94	9	Somerset, Vt	29	31	6.39	+2.61	Sandwich, Mass	17.85	Salisbury, Conn	2.09
New Jersey	69.2	−2.8	Elizabeth	93	9	Charlotteburg	38	31	4.49	−.23	Toms River	8.20	Tuckerton	2.03
New Mexico	72.4	+.6	3 stations	105	1 3	Eagle Nest	34	1 5	3.42	+.96	McGaffey R. S.	8.97	Jal	.45
New York	64.9	−2.7	3 stations	93	1 8	Indian Lake	29	30	3.65	−.05	Riverhead	12.77	Jamestown	1.30
North Carolina	73.4	−2.5	2 stations	98	1 6	2 stations	33	31	4.38	−1.12	Albemarle	10.73	Helton	.60
North Dakota	65.2	−1.3	2 stations	104	1 2	Golva	29	29	1.62	−.46	Sharon	6.04	Fairfield	.27
Ohio	67.0	−4.7	8 stations	94	1 3	Mansfield	32	30	2.51	−.86	Pataskala	5.38	Kenton	.69
Oklahoma	82.3	+.7	Alva	117	7	Reydon	44	30	3.06	+.14	Ardmore	8.95	Okay	.34
Oregon	65.3	+.3	Adrian	106	19	2 stations	25	7	.34	−.08	Paisley	2.10	13 stations	.00
Pennsylvania	66.9	−3.3	3 stations	94	1 4	Kane	30	25	3.87	−.29	Virginville	7.30	Washington	1.22
South Carolina	77.0	−1.9	3 stations	100	1 15	Heath Springs	50	31	5.22	−.46	Yemassee	12.79	Columbia Airport	1.78
Tennessee	73.6	−3.1	Kenton	99	9	Rugby	36	31	3.33	−.68	Greeneville	7.51	Knoxville Airport	.97
Texas	83.5	+.7	Seymour	114	6	2 stations	49	29	3.27	+.90	Trinidad	11.91	Garden City	.00
Utah	71.4	+1.5	Zion National Park	111	2	Woodruff	31	1 8	1.41	+.36	Bryce Canyon	5.03	Wendover	.09
Virginia	70.5	−3.8	Gordonsville	99	17	Mountain Lake	33	31	3.43	−.98	Saluda	10.51	Moores Creek Dam	.30
Washington	66.1	+.3	Wawawai	108	19	Paradise R. S.	27	16	.42	−.38	Kid Valley	3.65	5 stations	.00
West Virginia	67.4	−4.3	Great Cacapon	98	6	Canaan Valley	30	27	2.75	−1.33	Kearneysville	7.06	Brandywine	.84
Wisconsin	66.3	−1.4	4 stations	97	16	Coddington	26	29	2.29	−1.07	Praerie du Chien	7.52	Oconto	.64
Wyoming	64.6	+.5	Arvada	104	5	Bondurant	21	18	1.15	+.10	Archer	5.17	Midwest	.07
Alaska (July)	56.3	+.8	Tanana	92	12	2 stations	27	1 19	2.35	−.30	Little Port Walter	13.68	Barrow	.14
Hawaii	75.2	+.8	Waianae	93	1 2	Haleakala Ranger Station.	42	9	3.56	−3.19	Kukui	18.00	13 stations	.00
Puerto Rico	78.1	−.5	Utuado	97	25	Garzas	58	1 5	5.18	−1.57	Maricao	17.72	Ensenada	.32

1 Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR AUGUST 1946

District and station	Elevation of instruments: Barometer above sea level	Thermometer above ground	Anemometer above ground	Pressure: Station	Sea level	Departure from normal	Temperature of the air: Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Wind: Average hourly velocity	Prevailing direction	Maximum velocity: Miles per hour	Direction	Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
NEW ENGLAND	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	°F.	°F.	°F.		°F.	°F.		°F.	°F.		°F.	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
							65.2	−1.7										85	7.58	+4.1											6.8			
Eastport	75	67	85	1,012.9	1,015.6	+1.0	59.8	−.9	77	6	67	50	31	53	26	165	54	87	2.67	−.3	.87	13	8.2	s.	32	e.	3	4	12	15	7.2	.0	.0	
Greenville, Maine	1,070	6	41	977.0	1,015.9	+.7	60.6	−1.7	85	9	74	34	31	48	39	183	55	84	5.10	+1.7	1.76	15	2.2	sw.	19	------	10	1	14	16	----	.0	.0	0
Portland, Maine	103	5	43	1,011.5	1,015.2	.0	64.3	−.3	86	5	73	45	31	56	30	67	59	87	8.30	+5.2	4.18	19	8.0	s.	32	n.	2	8	10	13	6.3	.0	.0	2
Concord	289	5	45	1,005.1	1,015.6	+.7	64.0	−1.5	89	9	75	42	30	53	35	81	58	86	5.28	+1.7	2.40	15	6.3	nw.	26	e.	19	3	13	15	6.8	.0	.0	5
Burlington	403	5	51	1,000.7	1,015.2	+.3	65.0	−2.9	91	9	75	42	30	55	35	63	58	82	4.32	+1.0	2.00	15	7.3	s.	31	s.	16	3	15	13	6.9	.0	.0	6
Boston	124	33	62	1,011.2	1,015.6	.0	67.8	−2.1	90	9	75	52	31	61	25	37	59	78	9.92	+6.3	3.12	16	10.8	sw.	31	n.	2	5	10	16	7.1	.0	.0	4
Nantucket	12	4	34	1,015.2	1,015.6	.0	64.9	−2.9	78	11	71	50	31	59	23	46	60	90	12.92	+9.5	3.67	14	11.8	sw.	38	n.	2	6	8	17	7.1	.0	.0	4
Block Island	26	11	46	1,014.9	1,015.9	+.3	66.6	−1.9	78	17	72	54	31	61	15	22	62	90	8.08	+4.4	2.91	10	12.9	sw.	34	n.	1	10	5	16	6.2	.0	.0	4
Providence	159	46	60	1,009.8	1,015.6	.0	68.6	−2.4	92	9	77	48	31	60	28	33	60	86	12.24	+8.7	4.75	13	7.8	sw.	28	nw.	23	6	9	16	7.0	.0	.0	4
Hartford	159	5	44	1,009.8	1,015.6	.0	67.5	−1.4	90	9	77	48	25	58	30	29	60	83	6.76	+2.5	1.72	14	6.9	n.	25	sw.	29	4	11	16	6.8	.0	.0	6
New Haven	107	5	39	1,011.9	1,015.6	.0	67.5	−1.1	84	9	75	52	31	60	23	19	60	82	7.83	+3.9	3.22	15	6.5	sw.	25	nw.	10	6	11	14	6.3	.0	.0	9
MIDDLE ATLANTIC							70.9	−2.5										78	3.29	−.9											6.3			
Albany	97	26	40	1,011.9	1,015.9	+.07	66.0	−3.0	88	9	78	40	30	54	36	40	57	80	2.17	−.9	.91	10	6.1	n.	31	s.	10	4	17	10	6.3	.0	.0	1
Binghamton	871	60	79	986.1	1,016.6	+1.0	65.3	−2.7	88	9	76	42	30	55	32	65	57	88	2.59	−1.0	.65	11	4.4	w.	17	w.	17	1	15	15	7.2	.0	.0	7
New York	314	415	454	1,004.1	1,015.2	−.7	70.6	−2.5	87	9	78	53	30	64	23	6	60	74	3.52	−.8	1.06	10	10.7	n.	45	nw.	17	8	11	12	6.0	.0	.0	6
Harrisburg	374	30	49	1,002.7	1,015.9	−.4	69.4	−3.2	93	4	80	49	31	59	32	15	60	78	2.97	−1.1	1.06	9	5.9	sw.	20	s.	9	6	14	11	6.3	.0	.0	4
Philadelphia	114	5	57	1,011.9	1,015.9	.0	72.1	−2.7	89	5	80	55	30	64	24	1	62	78	4.44	−.2	1.92	14	6.7	nw.	17	ne.	7	8	10	13	6.0	.0	.0	6
Reading	323	47	306	1,004.4	1,015.9	-----	70.0	−2.9	91	5	80	48	31	60	30	11	----	---	4.01	−.2	1.27	11	7.6	n.	29	sw.	28	7	9	15	6.4	.0	.0	4
Scranton	805	72	104	987.5	1,016.3	+.4	66.4	−3.4	88	9	76	42	31	56	33	45	----	--	2.97	−.7	1.24	10	5.2	n.	19	nw.	22	3	19	9	6.3	.0	.0	4
Atlantic City	52	37	172	1,013.9	1,015.6	−.7	71.9	−.6	85	17	78	56	31	66	20	4	64	80	2.92	−1.6	.65	11	12.5	s.	31	w.	26	4	14	13	6.6	.0	.0	5
Trenton	190	89	107	1,008.8	1,015.6	−.7	70.4	−2.6	89	5	79	52	30	62	24	6	60	75	2.86	−1.9	.80	14	7.4	n.	22	n.	17	4	13	14	6.5	.0	.0	7
Baltimore	123	100	215	1,011.9	1,015.9	−.4	73.2	−2.3	92	5	81	54	31	65	24	1	62	74	4.02	−.4	1.55	9	8.2	n.	25	nw.	26	9	12	10	5.5	.0	.0	6
Washington	112	56	100	1,012.2	1,016.3	.0	73.2	−1.8	92	10	82	51	31	64	25	4	62	73	4.18	−.2	2.11	8	5.7	n.	22	nw.	6	7	13	11	6.0	.0	.0	6
Cape Henry	18	8	54	1,015.2	1,015.9	-----	75.7	−1.2	92	10	82	58	31	69	22	0	66	78	2.75	−2.1	1.14	9	10.5	n.	38	n.	23	7	10	14	6.1	.0	.0	9
Lynchburg	686	4	50	992.2	1,016.6	.0	70.9	−3.4	91	5	80	48	31	61	26	14	63	82	3.34	−.4	1.22	11	6.3	sw.	27	sw.	6	5	15	11	6.5	.0	.0	10
Norfolk	91	80	125	1,013.2	1,016.6	+.7	75.4	−2.0	94	6	82	60	31	69	23	0	66	82	3.51	−1.7	1.61	11	7.8	ne.	21	n.	1	4	11	16	6.7	.0	.0	9
Richmond	144	11	52	1,010.8	1,015.9	+.4	73.4	−3.1	91	6	82	51	31	65	26	4	64	82	3.15	−1.3	1.17	11	5.9	sw.	21	nw.	6	6	14	11	6.4	.0	.0	11
SOUTH ATLANTIC							76.9	−.9										82	4.95	−.7											6.6			
Asheville	2,253	77	92	939.4	1,016.6	.0	71.0	+.5	89	19	81	45	31	61	30	9	62	85	1.78	−2.4	.98	9	5.8	nw.	19	nw.	10	3	14	14	6.8	.0	.0	4
Charlotte	779	63	86	988.8	1,016.3	−.3	75.7	−1.4	94	10	85	53	31	66	25	1	65	78	3.40	−1.7	1.08	9	5.6	ne.	22	ne.	3	2	13	16	7.0	.0	.0	9
Greensboro	886	6	56	985.4	1,016.9	+1.0	73.4	−2.2	92	19	83	47	31	63	28	12	64	81	2.49	−2.8	.80	11	6.3	n.	23	w.	6	4	12	15	6.8	.0	.0	8
Hatteras	11	5	50	1,015.6	1,015.9	.0	76.4	−1.6	85	19	81	64	28	72	15	0	71	86	5.94	+.2	1.57	10	10.6	sw.	34	n.	12	3	12	16	6.9	.0	.0	7
Raleigh	376	5	69	1,003.1	1,016.6	+.3	74.8	−2.2	94	18	84	51	31	65	26	4	66	87	3.58	−1.8	1.18	9	5.6	sw.	32	se.	20	2	16	13	6.7	.0	.0	10
Wilmington	72	73	107	1,013.9	1,016.3	+.4	76.4	−1.2	92	17	84	59	31	68	22	0	70	88	10.33	+4.0	3.19	15	7.4	sw.	30	nw.	23	8	13	10	5.8	.0	.0	12
Charleston	48	11	92	1,014.6	1,016.3	.0	79.7	−1.3	95	18	86	65	26	73	21	0	70	87	4.90	−1.6	1.00	14	9.0	sw.	26	nw.	11	5	18	8	5.8	.0	.0	10
Columbia, S. C.	347	70	91	1,003.7	1,016.3	.0	78.6	−1.0	97	10	88	58	31	69	26	0	68	78	2.74	−2.7	.68	10	6.6	s.	26	sw.	4	10	9	12	5.7	.0	.0	12
Greenville, S. C.	1,040	18	36	979.7	1,016.3	-----	75.6	−.2	92	19	85	58	31	66	25	0	65	76	5.56	+.1	1.90	10	7.0	ne.	27	n.	22	1	19	11	6.8	.0	.0	11
Augusta	182	62	77	1,009.5	1,015.9	−.4	80.1	−.3	98	19	90	62	31	70	27	0	66	73	1.97	−3.1	.66	11	5.3	s.	20	ne.	24	3	18	10	6.6	.0	.0	8
Savannah	65	73	152	1,013.9	1,016.3	.0	80.2	+.3	96	12	88	68	21	72	23	0	72	84	5.00	−2.3	1.52	12	8.9	sw.	35	se.	11	1	15	15	7.1	.0	.0	14
Jacksonville	43	86	110	1,014.9	1,016.6	+.3	81.4	−.3	94	10	89	68	26	74	20	0	73	85	11.75	+5.9	3.26	20	7.2	sw.	25	w.	20	0	22	9	6.7	.0	.0	15
FLORIDA PENINSULA							82.6	+.3										80	4.37	−1.8											5.9			
Key West	21	10	64	1,015.2	1,015.9	+.7	84.0	+.5	91	8	90	73	24	78	16	0	74	76	2.94	−1.6	.55	20	7.4	e.	24	se.	22	6	18	7	5.4	.0	.0	15
Miami	26	242	249	1,015.2	1,016.3	−.3	81.6	−.5	89	8	86	71	24	77	16	0	74	82	3.69	−2.2	1.01	16	9.9	e.	42	e.	20	4	21	6	5.7	.0	.0	18
Tampa	35	6	43	1,015.2	1,016.6	+.7	82.4	+.9	94	11	91	70	1	74	22	0	74	82	6.50	−1.7	2.30	13	5.9	sw.	25	w.	3	0	21	10	6.7	.0	.0	18
EAST GULF							79.4	−.9										81	4.23	−1.1											6.2			
Atlanta	1,173	33	72	976.0	1,016.6	-----	77.2	−.8	95	20	87	57	31	67	28	0	64	74	2.60	−2.1	.68	8	8.2	e.	33	w.	10	5	18	8	5.8	.0	.0	5
Macon	370	79	87	1,003.1	1,015.9	−.4	78.4	−1.5	95	18	88	61	31	69	26	0	68	80	2.62	−1.7	.93	10	5.4	e.	22	n.	10	0	18	13	7.3	.0	.0	11
Thomasville	273	49	58	1,006.8	1,016.6	+.7	79.7	−1.3	94	8	88	65	31	71	25	0	----	---	7.19	+1.4	1.71	19	----	---	----	------	---	3	13	15	----	.0	.0	15
Apalachicola	35	11	51	1,014.6	1,015.9	-----	80.6	−.6	91	11	87	70	31	74	18	0	75	85	9.22	+1.7	1.97	17	5.6	sw.	24	e.	15	2	15	14	7.0	.0	.0	20
Pensacola	56	54	79	1,014.2	1,016.3	+1.1	81.6	+.7	96	18	90	64	31	74	22	0	72	82	4.52	−3.5	.98	11	6.2	w.	22	w.	5	5	13	13	6.2	.0	.0	13
Anniston	741	9	----	----	----	----	77.0	−1.2	94	17	89	51	31	65	32	0	----	---	.93	−3.1	.43	5	----	nw.	---	------	---	14	11	6	----	.0	.0	2
Birmingham	700	5	62	992.2	1,016.9	+1.3	76.2	−2.3	94	10	88	51	31	65	33	1	66	77	5.33	+1.1	2.79	6	5.6	ne.	26	nw.	6	5	17	9	6.0	.0	.0	5
Mobile	57	86	161	1,014.6	1,016.6	+1.4	81.5	+.5	96	18	90	64	31	73	24	0	71	83	5.37	−1.6	1.91	10	6.5	n.	27	n.	11	6	6	19	6.7	.0	.0	15
Montgomery	218	92	105	1,008.5	1,016.3	+.7	79.6	−1.2	94	17	89	61	31	70	26	0	68	78	4.32	+.1	1.68	7	5.4	n.	30	nw.	6	5	15	11	6.1	.0	.0	5
Meridian	378	67	92	1,003.4	1,016.6	+1.4	78.4	−1.1	95	10	88	56	31	68	29	0	68	81	3.54	−1.0	1.72	9	4.6	n.	16	s.	1	8	11	12	5.7	.0	.0	11
Vicksburg	247	82	102	1,007.5	1,016.3	+1.1	80.0	−.8	95	10	88	60	31	72	23	0	72	86	1.31	−2.2	.84	6	7.0	sw.	23	w.	5	14	5	12	5.2	.0	.0	2
New Orleans	53	50	84	1,014.6	1,016.3	+1.1	82.4	-----	96	9	91	68	31	74	21	0	72	81	3.78	−2.0	1.53	13	5.1	w.	20	n.	19	4	15	12	6.1	.0	.0	16
WEST GULF							83.3	+.8										72	2.99	−.3											5.4			
Shreveport	249	5	64	1,007.1	1,015.9	+1.0	81.4	−.3	99	7	90	62	31	72	25	0	70	74	3.44	+.7	1.62	6	7.2	sw.	31	n.	11	8	13	10	5.9	.0	.0	4
Fort Smith	463	57	82	998.6	1,014.6	−.3	81.4	+.9	104	9	94	56	30	68	35	0	64	62	.78	−2.5	.45	5	7.6	ne.	35	ne.	3	11	10	10	5.5	.0	.0	5
Little Rock	357	26	58	1,003.7	1,016.3	+1.1	79.8	.0	99	8	90	55	31	70	28	0	67	71	.69	−3.1	.45	5	7.1	sw.	27	n.	3	11	8	12	5.5	.0	.0	5
Austin	605	10	41	993.6	1,014.6	-----	83.2	−.6	98	8	94	65	22	72	29	0	68	70	3.36	+1.3	2.25	6	8.8	s.	28	se.	28	9	17	5	5.0	.0	.0	4
Brownsville	57	5	54	1,011.2	1,013.2	---	84.8	+.9	96	29	94	68	22	76	24	0	74	78	2.09	−.8	1.91	5	10.4	se.	28	se.	25	11	13	7	5.0	.0	.0	2
Corpus Christi	20	4	33	1,013.9	1,014.6	+1.1	83.8	+2.2	96	20	93	67	22	75	23	0	74	980	3.09	------	2.96	5	10.8	se.	34	s.	26	11	14	6	4.8	.0	.0	3
Dallas	512	5	45	996.6	1,014.6	-----	85.5	+2.0	106	6	95	65	22	76	29	0	68	61	3.95	+1.2	3.69	3	10.5	s.	25	s.	25	13	10	8	4.7	.0	.0	1
Fort Worth	679	40	56	990.9	1,014.2	+.3	85.0	+2.3	105	6	95	64	30	75	26	0	66	60	6.84	+4.2	4.89	5	10.9	s.	25	n.	19	13	11	7	4.6	.0	.0	3
Galveston	54	106	114	1,013.9	1,015.9	+1.3	83.6	+.6	93	11	88	70	30	80	12	0	75	79	3.22	−1.1	1.57	9	9.5	s.	22	s.	30	10	14	7	5.0	.0	.0	8
Houston	138	157	190	1,010.5	1,015.2	-----	83.7	+.5	97	19	92	67	22	76	25	0	72	80	1.15	−3.0	.36	8	8.1	se.	23	se.	25	1	21	9	6.4	.0	.0	9
Palestine	510	64	72	998.3	1,015.9	+1.0	82.4	+.6	97	10	92	65	22	73	26	0	69	71	3.91	+1.7	2.12	7	6.8	s.	17	ne.	11	9	18	4	5.0	.0	.0	5
Port Arthur	34	59	134	1,014.2	1,015.6	-----	83.9	+.7	96	19	91	68	22	77	21	0	73	82	2.27	−3.8	.93	10	10.4	s.	31	nw.	29	2	22	7	6.2	.0	.0	10
San Antonio	693	8	51	990.2	1,014.2	+.7	83.8	+.3	101	6	96	63	22	72	32	0	69	70	4.03	+1.6	3.55	3	9.4	se.	37	ne.	20	7	16	8	5.9	.0	.0	4

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR AUGUST 1946—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Average cloudiness, tenths: Clear days	Average cloudiness, tenths: Partly cloudy days	Average cloudiness, tenths: Cloudy days	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
OHIO VALLEY AND TENNESSEE	*Ft.*	*Ft.*	*Ft.*	*Mb.*	*Mb.*	*Mb.*	° *F.*	° *F.*	°*F.*		°*F.*	° *F.*		° *F.*	° *F.*		° *F.*	%	*In.*	*In.*	*In.*		*Mi.*								*0–10*	*In.*	*In.*	
							71.0	−3.2										76	2.88	−.6											5.9			
Chattanooga [1]	762	6	66	989.5	1,016.3	+.4	76.4	+.7	96	17	88	50	31	64	32	1	64	74	1.47	−2.6	1.39	5	6.5	n.	32	w.	10	6	15	10	5.9	.0	.0	5
Knoxville [1]	995	27	53	981.7	1,016.6	.0	74.4	−1.0	92	17	85	49	31	64	30	5	62	73	.97	−3.0	.53	8	7.1	ne.	25	n.	10	6	14	11	6.0	.0	.0	6
Memphis [4]	399	5	86	1,002.4	1,016.3	+1.1	78.4	.0	98	9	89	48	31	68	34	0	66	74	1.22	−2.1	.54	5	7.2	e.	24	nw.	3	10	11	10	5.2	.0	.0	6
Nashville [1]	546	5	72	997.3	1,016.9	+1.0	74.2	−3.6	94	9	84	47	31	64	33	1	62	74	2.22	−1.5	1.14	10	7.2	n.	35	nw.	9	8	13	10	5.9	.0	.0	5
Lexington [1]	989	4	28	981.7	1,017.3	+1.0	69.3	−5.2	90	9	79	45	31	59	32	22	60	78	3.60	+.2	1.96	8	----	ne.	----	----	----	9	9	13	5.8	.0	.0	3
Louisville [2]	525	106	120	998.0	1,016.9	+1.0	70.7	−5.4	93	5	81	45	31	60	32	15	61	76	4.26	+.8	2.48	8	6.1	n.	26	nw.	5	9	9	13	5.9	.0	.0	6
Evansville [1]	431	11	40	1,001.7	1,016.9	+1.3	71.1	−3.9	93	9	81	46	31	61	32	12	64	82	5.55	+2.2	2.38	10	5.9	nw.	35	n.	17	6	12	13	6.4	.0	.0	7
Indianapolis [1]	823	5	54	987.1	1,016.9	+1.0	69.0	−3.4	92	9	80	42	30	58	31	27	58	74	2.52	----	1.10	7	7.4	ne.	34	nw.	5	7	12	12	6.1	.0	.0	6
Terre Haute [2]	575	68	149	996.6	1,017.3	----	70.8	−4.4	92	9	80	46	30	61	28	17	61	80	5.28	+2.0	3.32	10	7.1	n.	41	nw.	5	8	9	14	6.3	.0	.0	6
Cincinnati [2]	627	11	51	994.6	1,017.3	+1.0	71.8	−1.8	94	9	81	50	30	62	28	6	60	79	2.79	−.6	1.15	8	5.0	e.	22	nw.	10	7	16	8	5.6	.0	.0	5
Columbus [2]	822	90	110	987.8	1,017.3	+1.0	69.1	−3.9	89	4	79	47	30	59	31	23	56	75	3.58	+.3	1.29	8	7.4	n.	37	sw.	9	9	14	8	5.3	.0	.0	4
Dayton [1]	1,003	6	55	981.4	1,017.3	----	68.2	−4.7	88	9	79	45	30	58	29	30	56	70	1.50	−1.8	.49	8	8.2	n.	30	w.	10	10	14	7	5.3	.0	.0	2
Elkins [1]	1,947	4	45	949.5	1,018.0	+1.4	64.4	−3.9	86	5	76	40	28	53	40	85	57	88	2.11	−1.8	1.01	8	4.9	nw.	28	nw.	6	2	18	11	6.6	.0	.0	3
Parkersburg	637	77	84	994.2	1,016.9	+.6	69.6	−4.3	91	5	80	49	30	59	33	17	58	74	3.73	+.2	1.38	9	5.1	se.	14	nw.	10	7	14	10	6.0	.0	.0	7
Pittsburgh [1]	842	39	54	986.5	1,016.9	+.6	67.4	−3.9	89	5	76	49	30	58	26	33	56	74	2.11	−1.1	.70	8	7.7	n.	26	sw.	10	5	15	11	6.2	.0	.0	5
LOWER LAKES																																		
							66.8	−2.2										74	2.47	−.5										5.7			
Buffalo [1]	768	34	96	988.5	1,015.9	+.3	66.0	−2.4	87	9	76	43	30	56	29	54	56	76	4.35	+1.3	2.70	9	10.1	sw.	36	sw.	17	2	19	10	6.5	.0	.0	4
Canton	448	10	61	999.0	1,014.9	----	64.2	−2.3	89	8	75	39	30	54	32	87	54	75	2.20	−1.4	.59	12	6.3	sw.	28	w.	10	6	11	14	6.4	.0	.0	5
Oswego	335	71	85	1,003.7	1,015.9	+.3	65.6	−2.2	88	9	73	46	30	58	26	56	57	76	2.73	+.1	.59	13	7.0	s.	19	se.	19	8	15	8	5.3	.0	.0	5
Rochester [1]	523	5	69	997.3	1,015.9	+.3	65.8	−2.1	90	9	76	43	30	56	29	63	56	76	3.62	+.71	1.71	11	7.4	sw.	34	s.	19	5	19	7	5.8	.0	.0	4
Syracuse [1]	596	5	57	994.6	1,016.3	+.7	65.7	−1.6	91	9	76	42	31	55	33	57	57	78	2.61	−.2	1.22	14	7.9	sw.	28	w.	17	3	15	13	6.9	.0	.0	5
Erie [2]	714	57	81	990.9	1,016.6	+.3	68.0	−1.6	88	9	75	49	30	61	24	22	58	78	2.25	−1.0	1.68	10	6.2	w.	22	sw.	10	7	15	9	5.5	.0	.0	1
Cleveland [1]	762	27	54	989.2	1,016.9	+.6	68.0	−2.2	90	4	79	46	25	57	34	36	56	70	1.71	−1.1	.59	9	8.5	s.	30	w.	10	6	19	6	5.4	.0	.0	5
Sandusky	629	5	67	993.9	1,016.6	+.3	69.0	−2.8	90	4	78	45	30	60	29	26	----	----	2.14	−1.0	.88	9	7.3	ne.	20	n.	4	14	11	6	4.3	.0	.0	4
Toledo [1]	628	5	47	993.9	1,016.9	+1.0	67.2	−3.0	91	4	79	41	30	56	33	52	56	72	1.44	−1.4	.61	6	8.4	sw.	29	nw.	10	7	17	7	5.3	.0	.0	4
Fort Wayne [1]	857	5	33	985.8	1,016.6	----	67.2	−3.7	89	7	79	41	30	55	33	41	54	68	2.06	−1.0	.98	6	6.3	nw.	25	nw.	10	4	21	6	5.5	.0	.0	5
Detroit [1]	730	5	78	990.9	1,016.9	+.6	68.4	−.8	92	16	78	45	30	58	27	37	55	68	2.01	−.8	.95	7	7.8	nw.	34	nw.	10	5	19	7	5.5	.0	.0	5
UPPER LAKES																																		
							65.4	−.6										73	2.22	−.7										5.5			
Alpena	609	5	89	993.9	1,016.6	+.7	62.8	−1.3	85	8	72	44	12	54	28	120	54	76	1.81	−1.0	.39	11	8.3	nw.	25	se.	14	9	12	10	5.5	.0	.0	4
Escanaba	612	51	72	993.9	1,015.9	+.3	63.2	−1.1	83	4	72	40	23	54	33	115	55	78	2.59	−.6	.59	12	9.1	s.	31	nw.	10	8	12	11	5.8	.0	.0	5
Grand Rapids [2]	707	70	244	991.2	1,016.9	+1.0	69.2	−.5	91	7	79	48	24	59	30	36	54	67	1.23	−1.4	.76	4	8.9	n.	30	nw.	10	7	17	7	5.4	.0	.0	4
Lansing [2]	878	5	90	985.1	1,016.9	----	65.8	−2.7	89	16	77	42	30	55	31	74	52	66	.88	−1.9	.51	9	6.5	n.	21	nw.	10	6	17	8	5.7	.0	.0	3
Marquette	734	44	73	988.8	1,015.9	+.7	63.5	−.3	89	7	72	43	23	55	31	137	52	72	4.98	+2.3	1.66	13	7.9	w.	26	sw.	9	7	12	12	5.9	.0	.0	4
Sault Sainte Marie [1]	614	11	52	993.6	1,016.3	+.7	61.6	+.8	87	7	72	43	29	51	38	140	54	82	4.21	+1.5	1.66	11	9.4	nw.	27	w.	19	7	11	13	6.3	.0	.0	6
Chicago [1]	673	5	36	992.6	1,016.6	+.7	69.9	−1.7	93	3	81	47	30	59	31	21	56	69	1.93	−1.1	1.18	6	7.3	e.	26	w.	9	11	13	7	4.8	.0	.0	3
Green Bay	617	5	32	993.9	1,016.6	+1.0	66.2	−1.5	90	16	78	40	29	54	32	64	54	70	1.88	−1.3	1.30	6	6.9	s.	27	sw.	16	5	19	7	5.6	.0	.0	4
Milwaukee [1]	681	33	66	991.9	1,016.6	+.7	67.8	+.2	93	16	78	47	30	58	29	34	56	70	1.63	−1.0	.74	8	9.9	se.	32	w.	9	12	11	8	4.9	.0	.0	4
Duluth [2]	1,133	5	47	974.9	1,016.3	+1.4	64.2	+1.6	85	8	74	43	29	55	35	97	53	77	1.07	−2.1	.87	11	11.0	nw.	32	w.	31	11	11	9	5.0	.0	.0	3
NORTH DAKOTA																																		
							65.9	+.1										64	1.25	−.9										4.4			
Fargo [1]	940	6	47	981.4	1,015.2	+.6	66.4	+.3	98	2	80	37	28	53	39	66	52	66	1.76	−1.1	.62	7	11.9	s.	37	nw.	18	11	17	3	4.4	.0	.0	5
Bismarck [1]	1,677	5	43	956.3	1,016.3	+1.4	66.8	+.1	100	2	81	40	30	53	43	54	50	62	1.12	−.7	.46	8	11.1	nw.	37	w.	8	18	6	7	4.1	.0	.0	7
Devils Lake	1,478	11	44	963.1	1,016.3	+1.4	64.8	.0	99	2	78	39	11	52	39	87	50	66	.99	−1.5	.64	10	8.5	w.	26	w.	8	12	11	8	4.6	.0	.0	5
Grand Forks [1]	832	4	41	985.4	1,015.6	----	65.5	----	100	2	79	41	31	52	40	74	50	66	4.67	----	3.40	10	----	nw.	----	----	----	10	12	9	----	.0	.0	7
Williston	1,878	42	50	949.2	1,015.2	+1.7	66.0	−.1	100	6	79	40	29	53	41	74	47	58	1.13	−.3	.83	4	7.3	se.	30	w.	7	14	10	7	4.5	.0	.0	4
UPPER MISSISSIPPI																																		
							69.7	−2.3										76	3.38	−.2										5.6			
Minneapolis-St. Paul [1]	919	43	74	982.7	1,015.6	+.7	68.8	−1.1	95	16	80	45	29	58	31	29	54	68	.43	−2.7	.37	5	9.3	se.	32	w.	18	8	17	6	4.8	.0	.0	2
La Crosse [1]	714	5	29	990.5	1,016.3	+1.1	66.6	−2.8	94	16	78	42	29	55	33	45	58	78	3.37	−.3	.86	10	6.6	s.	42	nw.	16	8	15	8	5.4	.0	.0	10
Madison [3]	974	70	78	982.1	1,016.9	+1.3	68.8	−1.0	92	16	78	47	29	60	25	22	56	70	2.01	−1.2	1.11	11	5.7	nw.	21	nw.	16	7	16	8	5.5	.0	.0	4
Charles City	1,015	10	51	981.0	1,017.6	+2.7	66.8	−2.3	92	16	78	41	29	56	31	44	----	----	2.59	−.9	1.23	9	5.1	s.	23	w.	8	15	10	6	4.5	.0	.0	5
Moline [1]	606	6	50	994.9	1,017.3	+2.1	69.2	−2.5	88	16	80	46	30	59	30	19	60	76	3.91	+.4	1.04	10	7.2	e.	47	sw.	9	6	18	7	5.7	.0	.0	7
Des Moines [3]	860	5	99	----	1,017.3	+2.4	70.3	−2.8	95	2	80	45	29	61	30	23	60	78	4.58	+1.1	1.24	12	8.1	se.	29	nw.	16	6	12	13	6.3	.0	.0	8
Dubuque	699	60	79	991.5	1,016.6	+1.4	70.0	−1.7	92	16	80	46	29	60	29	19	60	76	3.18	−.1	1.80	12	4.8	se.	16	nw.	18	8	16	7	5.3	.0	.0	6
Burlington [1]	702	4	36	991.5	1,016.6	+1.4	69.4	−4.6	92	1	79	48	29	60	31	19	62	80	5.27	+1.7	2.14	12	7.9	se.	50	w.	9	4	15	12	6.2	.0	.0	11
Cairo	357	5	99	1,004.1	1,016.6	+1.0	75.3	−3.5	98	9	84	53	30	67	27	2	----	----	5.25	+2.2	2.08	9	7.0	ne.	33	nw.	5	10	8	13	5.9	.0	.0	7
Peoria [1]	609	6	26	995.3	1,016.9	+1.3	69.9	−1.6	90	1	80	46	30	60	29	12	60	76	3.40	+.3	1.31	9	7.4	e.	29	nw.	17	6	17	8	6.0	.0	.0	5
Springfield, Ill. [3]	636	5	191	994.2	1,016.9	+.3	72.2	−2.3	92	9	81	52	30	63	26	5	62	82	3.17	.0	.97	11	9.0	e.	29	n.	5	4	17	10	6.3	.0	.0	11
MISSOURI VALLEY																																		
							73.8	−.5										71	3.62	+.3										5.4			
Columbia Mo. [2]	784	6	66	988.5	1,016.6	+1.7	74.0	−2.3	96	17	83	50	30	65	27	8	63	76	5.72	+2.1	2.45	11	5.9	e.	17	e.	8	12	11	8	4.8	.0	.0	10
Kansas City [1]	963	39	76	981.4	1,015.2	+.3	77.0	+.4	102	16	87	49	29	67	31	6	62	65	3.70	+.2	2.73	9	8.7	e.	32	sw.	3	6	15	10	5.5	.0	.0	6
St. Joseph [3]	967	11	49	981.4	1,015.2	----	75.0	−1.5	100	2	85	47	29	65	32	0	62	72	1.44	−2.4	.56	10	6.9	e.	25	nw.	5	9	14	8	5.2	.0	.0	7
Springfield, Mo. [1]	1,324	5	67	969.9	1,016.6	+1.7	75.3	+.3	102	8	86	48	30	65	31	12	64	75	5.79	+1.7	2.62	10	9.9	s.	37	nw.	17	9	9	13	5.9	.0	.0	9
Topeka	987	65	87	----	----	----	77.4	+1.2	105	16	88	49	29	67	35	6	62	68	6.30	+2.2	5.77	9	7.5	s.	20	nw.	5	7	13	11	5.9	.0	.0	8
Lincoln [3]	1,189	11	81	973.6	1,015.6	+1.4	73.8	−.6	99	7	84	44	29	64	36	19	62	74	2.90	−.7	.96	10	7.1	s.	44	sw.	7	6	10	15	6.2	.0	.0	10
Omaha [1]	1,105	5	68	976.6	1,016.3	+1.7	73.0	−.2	96	2	83	44	29	62	32	20	62	74	3.92	+.9	1.88	9	8.9	se.	28	s.	7	9	10	12	5.9	.0	.0	7
Valentine	2,598	46	54	925.5	1,015.9	+2.0	70.3	−1.4	97	20	84	44	29	57	43	38	50	58	2.15	.0	.84	7	8.4	s.	27	nw.	2	12	13	6	4.5	.0	.0	9
Sioux City [1]	1,138	5	40	976.6	1,015.9	+1.7	70.2	−.9	97	1	82	40	29	58	39	26	60	75	2.19	−.9	.73	10	8.2	e.	26	e.	5	11	11	9	5.0	.0	.0	10
Huron [1]	1,301	5	41	969.5	1,015.9	+1.7	68.6	−.8	98	2	82	36	29	55	42	47	55	70	.68	−1.8	.50	5	11.0	se.	32	n.	4	11	13	7	4.8	.0	.0	6
NORTHERN SLOPE																																		
							67.5	+.8										52	.99	−.2										4.6			
Billings [1]	3,570	16	40	893.3	1,015.2	----	68.8	−1.8	96	20	83	45	9	55	44	42	44	48	.95	----	.46	6	9.5	sw.	46	nw.	6	15	8	8	4.3	.0	.0	5
Havre	2,507	11	67	928.2	1,016.3	+3.7	66.6	+1.2	98	23	82	37	29	51	46	67	42	48	.35	−.9	.15	7	8.7	e.	36	nw.	6	13	10	8	4.5	.0	.0	4
Helena [1]	4,124	5	43	876.4	1,015.9	+2.0	66.0	+1.4	93	19	81	41	9	51	47	60	40	47	.48	−.3	.26	7	8.6	w.	34	nw.	6	15	10	6	4.0	.0	.0	5
Missoula [1]	3,263	4	32	903.8	1,016.6	----	66.6	+2.4	97	20	83	39	17	50	49	38	41	50	.44	−.3	.35	4	7.3	se.	33	nw.	6	16	9	6	3.6	.0	.0	6
Kalispell	2,973	48	56	913.0	1,014.6	+1.1	64.2	+1.4	90	22	78	36	7	50	43	84	43	52	.77	−.1	.56	5	5.9	w.	24	sw.	6	15	11	5	4.2	.0	.0	5
Miles City [1]	2,371	5	28	932.6	1,015.9	+2.4	70.5	----	102	6	85	44	29	56	42	40	46	54	1.00	----	.64	5	----	e.	----	----	----	15	11	5	4.2	.0	.0	5
Rapid City [1]	3,259	5	63	904.2	1,016.3	+2.8	67.0	−2.5	99	6	81	40	30	53	39	56	49	60	1.18	−.5	.46	8	11.9	nw.	50	nw.	7	16	9	6	4.1	.0	.0	11
Cheyenne [1]	6,094	5	40	817.5	1,015.6	+2.4	65.8	+.2	92	4	80	42	29	52	40	68	46	60	3.04	+1.5	1.61	15	8.5	w.	33	nw.	6	6	14	11	5.8	.0	.0	13
Lander	5,352	60	68	838.5	1,015.2	+2.0	68.4	+2.9	93	2	83	45	14	53	41	42	36	39	.39	−.1	.20	5	7.8	sw.	38	w.	5	14	8	9	4.3	.0	.0	8
Sheridan [1]	3,790	5	38	886.6	1,015.9	----	67.6	+1.1	100	5	83	44	19	52	50	58	42	51	1.14	+.2	.45	7	7.0	nw.	44	nw.	16	16	7	8	4.5	.0	.0	6
North Platte [3]	2,821	11	51	918.1	1,014.9	+1.0	72.0	+1.2	97	2	84	50	29	60	39	22	56	66	1.13	−1.3	.32	9	6.4	se.	21	n.	2	8	13	10	5.5	.0	.0	8

See footnotes at end of table.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR AUGUST 1946—Continued

District and station	Elevation of instruments: Barometer above sea level	Elevation of instruments: Thermometer above ground	Elevation of instruments: Anemometer above ground	Pressure: Station	Pressure: Sea level	Pressure: Departure from normal	Temperature of the air: Mean	Temperature of the air: Departure from normal	Temperature of the air: Maximum	Temperature of the air: Date	Temperature of the air: Mean maximum	Temperature of the air: Minimum	Temperature of the air: Date	Temperature of the air: Mean minimum	Temperature of the air: Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation: Total	Precipitation: Departure from normal	Precipitation: Greatest in 24 hours	Precipitation: Days with 0.01 inch or more	Wind: Average hourly velocity	Wind: Prevailing direction	Wind: Maximum velocity: Miles per hour	Wind: Maximum velocity: Direction	Wind: Maximum velocity: Date	Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms
MIDDLE SLOPE	Ft.	Ft.	Ft.	Mb.	Mb.	Mb.	°F.	°F.	°F.		°F.	°F.		°F.	°F.		°F.	%	In.	In.	In.		Mi.					0–10	In.	In.	
							77.9	+1.3										60	3.15	+.6								5.7			
Denver [2]	5,292	106	113	841.2	1,014.9	+1.7	71.8	+1.1	95	4	83	49	29	60	34	27	48	54	1.24	−.2	.51	9	6.6	s.	26	s.	14	5.7	.0	.0	5
Pueblo [1]	4,690	5	36	859.5	1,014.2	+1.3	73.0	+.3	98	6	86	51	29	60	40	13	54	64	5.37	+3.6	2.31	14	7.2	nw.	33	sw.	1	5.7	.0	.0	14
Concordia	1,392	50	58	966.1	1,014.6	+.4	75.8	−.7	110	7	86	47	29	66	39	18	60	63	1.98	−.9	1.13	9	6.6	se.	25	n	4	6.1	.0	.0	9
Dodge City [1]	2,509	5	58	928.2	1,013.5	.0	77.3	−.4	106	7	89	51	29	65	40	13	59	62	4.41	+1.7	1.81	13	14.4	se.	40	sw.	14	6.0	.0	.0	13
Wichita [1]	1,358	6	64	967.2	1,014.6	+.4	79.6	+1.3	109	7	91	52	29	68	37	6	58	56	2.90	−.2	2.38	8	12.5	se.	40	nw.	17	6.3	.0	.0	6
Oklahoma City [3]	1,214	10	47	972.2	1,014.6	+.7	83.2	+3.5	107	7	94	54	30	72	31	0	64	61	2.39	−.5	1.20	9	8.0	s.	20	s.	13	5.0	.0	.0	4
Tulsa [1]	674	10	60	990.9	1,014.6	.....	82.2	+2.1	107	9	94	53	30	70	34	0	64	60	2.60	−.7	2.34	5	10.1	s.	34	n.	3	5.3	.0	.0	6
SOUTHERN SLOPE																															
							82.1	+3.2										55	1.76	−.5								4.7			
Abilene [1]	1,738	4	59	953.6	1,012.5	−.7	84.8	+4.5	104	7	96	62	29	74	30	0	60	52	1.89	−.4	1.61	4	14.0	s.	30	s.	15	5.2	.0	.0	3
Amarillo [1]	3,676	5	42	891.0	1,013.4	+.2	78.0	+3.4	100	17	90	53	29	66	35	4	60	62	3.96	+.9	1.13	12	14.1	s.	64	e.	18	5.5	.0	.0	12
Del Rio	960	63	71	979.3	1,011.5	−1.0	85.7	+1.5	100	7	95	69	23	76	23	0	64	55	.27	−1.4	.27	1	10.2	se.	27	se.	14	3.8	.0	.0	0
Roswell	3,566	75	85	893.7	1,012.9	+1.0	79.8	+3.2	101	17	92	63	31	68	31	0	55	50	.94	−1.2	.54	6	7.2	s.	27	ne.	4	4.4	.0	.0	9
SOUTHERN PLATEAU																															
							81.6	+1.8										54	1.99	.0								5.7			
El Paso [1]	3,778	39	85	886.6	1,010.8	+.3	81.8	+3.8	100	1	93	64	26	70	31	0	56	46	1.19	−.5	.45	10	9.7	se.	40	n.	26	5.1	.0	.0	15
Albuquerque [1]	5,314	5	45	840.8	1,012.5	.....	75.9	+2.0	94	1	88	59	30	64	28	0	55	57	1.49	+.2	.68	12	9.1	se.	48	se.	26	5.5	.0	.0	23
Flagstaff	6,907	36	51	795.1	.....	.....	65.4	+1.4	89	2	80	46	28	51	38	25	50	69	3.46	+.7	1.23	18	.....	n.	...	.....	...	6.3	.0	.0	22
Phoenix [2]	1,107	39	87	971.6	1,009.1	+.3	89.8	+1.3	111	1	102	70	2	78	37	0	64	48	2.01	+1.1	1.09	5	6.5	e.	34	se.	2	5.1	.0	.0	10
Tucson [1]	2,555	5	39	925.2	1,011.2	.....	84.0	−.2	105	1	96	66	31	72	29	0	62	56	3.61	−1.3	1.32	14	.....	s.	...	.....	...	5.9	.0	.0	16
Yuma	142	9	54	1,003.7	1,008.5	+.7	92.9	+2.5	113	2	106	74	11	80	32	0	65	46	.19	−.	3.19	1	5.6	s.	25	se.	19	2.1	.0	.0	5
MIDDLE PLATEAU																															
							73.1	+2.6										40	.88	+.1								3.7			
Reno [1]	4,527	20	52	863.2	1,013.9	+1.4	69.9	+4.2	102	9	93	38	29	47	58	13	39	45	T	−.2	T	0	6.9	w.	34	s.	18	2.4	.0	.0	2
Winnemucca	4,339	5	56	868.6	1,013.2	+1.3	73.3	+4.0	104	3	94	44	29	53	52	0	36	30	.05	−.2	.05	1	7.3	sw.	20	w.	23	3.0	.0	.0	3
Modena	5,473	10	46	835.8	1,012.9	+1.7	71.0	+1.8	99	2	86	44	29	56	44	1	.....	...	1.70	+.4	.69	9	9.6	sw.	29	w.	6	4.5	.0	.0	5
Salt Lake City [1]	4,227	32	58	867.6	1,012.2	−.7	75.4	+2.6	99	4	90	52	7	60	43	0	46	42	.95	−.0	.40	8	9.7	se.	46	sw.	6	3.8	.0	.0	9
Grand Junction [3]	4,602	60	68	861.8	1,014.2	+1.7	75.8	+.4	101	5	90	56	24	62	38	0	46	45	1.68	+.5	.80	10	6.3	se.	24	n.	26	4.9	.0	.0	13
NORTHERN PLATEAU																															
							71.1	+1.9										44	.36	−.1								3.3			
Baker [2]	3,471	36	54	896.7	1,015.9	+1.7	66.0	+1.4	96	4	84	39	7	48	48	50	40	54	.34	−.2	.26	6	5.6	se.	22	sw.	21	3.1	.0	.0	10
Boise [1]	2,739	5	49	918.7	1,012.5	−1.0	73.2	+2.2	105	19	89	43	7	57	45	4	44	38	.26	+.1	.23	2	9.0	nw.	33	sw.	19	3.4	.0	.0	3
Pocatello [1]	4,478	5	31	864.5	1,014.2	+1.0	70.4	+1.5	98	10	88	45	18	53	52	0	38	38	.82	+.3	.61	6	8.5	sw.	38	sw.	12	3.5	.0	.0	9
Spokane [1]	1,929	27	42	947.2	1,014.9	+.7	68.6	+.5	98	22	84	43	7	53	45	19	42	44	.07	−.6	.05	2	6.8	ne.	27	sw.	6	1.7	.0	.0	1
Walla Walla	991	57	65	979.0	1,014.2	−.4	74.4	+1.7	99	22	88	51	17	61	41	1	.....	...	.17	−.3	.11	3	5.1	s.	23	w.	6	2.9	.0	.0	2
Yakima	1,076	58	67	976.6	1,015.2	.....	73.8	+4.3	100	20	88	50	7	60	38	4	.....	...	.47	+.3	.47	1	7.1	nw.	22	nw.	14	3.4	.0	.0	2
NORTH PACIFIC COAST																															
							64.2	+.5										72	.44	−.4								4.6			
North Head	211	5	55	1,011.2	1,018.6	+1.7	56.4	−1.2	79	17	60	49	22	52	24	270	54	91	.40	−.6	.13	10	12.5	n.	31	n.	2	7.3	.0	.0	0
Seattle [2]	125	90	321	1,013.2	1,018.0	+2.1	65.0	−.1	88	22	74	52	6	56	32	54	53	70	.16	−.5	.09	4	7.4	n.	30	sw.	5	4.9	.0	.0	1
Tacoma	194	172	201	1,011.2	1,018.0	+1.4	63.6	+1.0	83	22	72	52	17	55	28	67	.....	...	.21	−.5	.09	3	7.5	n.	24	sw.	4	4.2	.0	.0	1
Tatoosh Island	86	9	61	1,015.9	1,019.3	+3.4	54.6	−.7	66	18	58	48	16	51	18	326	52	94	.99	−1.0	.59	11	10.4	s.	34	s.	5	6.3	.0	.0	0
Medford [1]	1,329	29	58	967.5	1,014.2	.....	72.8	+1.7	100	2	91	46	7	55	46	0	48	48	T	−.2	T	0	.....	n.	...	.....	...	2.3	.1	.0	1
Portland, Oreg. [3]	154	68	106	1,011.5	1,017.3	+1.0	68.3	+1.6	93	19	79	52	16	58	34	24	54	66	.25	−.4	.23	2	6.1	nw.	18	nw.	3	4.1	.0	.0	2
Roseburg	510	45	76	998.0	1,016.3	+.4	69.0	+1.0	96	19	83	47	7	54	45	14	52	61	.61	+.3	.42	4	4.4	n.	17	n.	2	3.2	.0	.0	4
MIDDLE PACIFIC COAST																															
							67.2	+.3										64	T	.0								4.2			
Eureka	60	72	88	1,015.2	1,017.6	+1.7	55.8	−.2	65	29	60	47	17	52	13	284	52	87	.01	−.2	.01	1	6.1	nw.	17	ne.	18	7.9	.0	.0	0
Red Bluff	353	5	26	999.0	1,011.5	.....	80.9	+1.2	110	2	98	55	28	64	40	0	44	32	.00	.0	.00	0	6.2	se.	18	se.	27	1.6	.0	.0	0
Sacramento	66	92	115	1,009.5	1,011.9	+1.1	74.0	+1.1	107	2	91	52	29	57	42	2	51	54	.00	.0	.00	0	7.7	s.	18	s.	27	1.1	.0	.0	0
San Francisco [3]	155	112	132	1,009.1	1,014.6	+1.4	58.1	−1.0	83	2	63	51	10	53	25	219	52	82	T	.0	T	0	10.6	w.	26	w.	5	6.2	.0	.0	0
SOUTH PACIFIC COAST																															
							75.3	+1.8										62	T	.0								2.5			
Fresno [2]	327	5	34	999.3	1,010.8	+1.0	81.1	+1.6	110	3	100	54	28	62	43	0	50	40	.00	.0	.00	0	6.4	nw.	18	nw.	12	1.3	.0	.0	0
Los Angeles	338	223	250	1,001.4	1,013.5	+1.6	72.3	+1.2	91	11	83	57	26	61	27	0	59	70	.00	.0	.00	0	5.4	w.	16	w.	20	2.2	.0	.0	0
San Diego [1]	87	20	55	1,010.2	1,013.2	+1.0	72.4	+2.6	88	12	79	62	1	65	20	0	62	75	T	.0	T	0	6.5	nw.	17	nw.	11	1.5	.0	.0	0
WEST INDIES																															
San Juan, P. R.	82	10	54	1,013.5	1,016.3	.....	80.1	−.4	90	6	84	73	15	76	15	0	74	80	4.78	−1.2	1.45	18	11.6	e.	34	e.	15	1.2	3.7	.0	6
PANAMA CANAL																															
Cristobal	23	37	92	.....	[4] 1,010.5	.....	78.9	.....	86	18	93	70	5	70	9	0	.....	[5] 87	13.28	.....	5.76	20	8.6	nw.	26	n.	5	0	9	22	.....	.0	.0	8
ALASKA																															
Anchorage [1]	132	6	44	1,009.8	1,014.9	.....	53.2	−2.4	72	9	63	32	14	44	32	365	46	76	1.69	−.9	.65	17	5.0	n.	22	sw.	5	2	7	22	7.7	.0	.0	1
Fairbanks [1]	455	5	63	995.3	1,012.5	.....	52.3	−2.8	80	10	65	29	6	40	40	393	44	72	1.80	−.2	.40	14	6.8	sw.	25	sw.	11	4	9	18	6.9	.0	.0	0
Juneau [1]	80	6	30	1,015.9	1,019.0	.....	52.4	.....	73	30	60	35	15	45	33	390	46	80	5.52	.....	1.11	21	7.6	n.	27	se.	20	5	4	22	7.6	.0	.0	0
Barrow	29	5	27	1,006.1	1,006.4	.....	38.8	−.6	66	11	44	28	13	33	33	810	37	94	2.13	.....	.50	19	11.9	sw.	33	.....	4	0	3	28	9.1	.5	.0	0
Cordova	45	5	32	1,014.6	1,016.3	.....	51.3	.....	70	28	59	33	23	44	28	423	47	86	11.12	.....	2.44	20	.....	e.	...	.....	4	2	25	8.0	.6	.0	0
Ketchikan	25	69	90	1,018.6	1,019.3	.....	58.1	−.3	80	29	65	45	3	51	28	216	50	77	8.73	−2.6	2.80	17	6.1	se.	21	nw.	24	6	7	18	6.9	.0	.0	0
Kotzebue	20	5	31	1,007.8	1,008.5	.....	46.3	−3.7	64	9	51	34	23	42	20	578	44	86	4.05	+2.5	.....	22	16.0	se.	36	nw.	20	3	4	24	8.3	.0	.0	0
McGrath	341	5	31	991.3	1,012.2	.....	52.0	−1.6	77	9	60	32	21	44	35	405	45	78	3.29	−.4	.63	21	.....	s.	33	s.	28	1	5	25	8.4	.0	.0	0
Northway	1,718	5	32	951.6	1,014.6	.....	53.6	.....	82	30	66	33	22	41	41	356	43	69	1.31	.....	.48	9	.....	se.	34	.....	...	6	9	16	6.5	T	.0	2

[1] Data are airport records.
[2] Barometric data (adjusted to old city elevation) and hygrometric data from airport; otherwise city office records.
[3] Observations taken hourly.
[4] Pressure (adjusted to old city elevation), temperature, and hygrometric data from airport; otherwise city office records.
[5] Temperature and precipitation from city records, other data from airport.

NOTE.—Except as indicated by notes [1], [2], [4], and [5] data in table are city office records.

SEVERE LOCAL STORMS FOR AUGUST 1946

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
	August 1946						
Augusta, Nelson, Lunenburg, and Cumberland Counties, Va.	1	4–5 p. m.	440 yards–6 miles.		$106,000	Hail and wind	Much loss in crops, principally tobacco. Large barn in Lunenburg County struck by lightning and burned. Path 2–8 miles long.
La Union, N. Mex.	1	5 p. m.			150,000	Heavy hail	Much loss in cotton; some loss in corn, tomatoes, and alfalfa seed.
Phoenix, Ariz.	2	9:06–9:45 p. m.			100,000	Thunderstorm and high wind.	Power and telephone lines disrupted; a number of buildings of the warehouse type along the Southern Pacific R. R. tracks on the west side of town damaged severely by wind. Roofs ripped off plants of 2 seed companies; plate glass windows broken. Lightning tore a hole in roof of club on East Washington St.; a haystack burned.
Elizabeth City, N. C.	2	P. m.				Wind and rain	2 planes damaged, 1 demolished, at the air base on the Pasquotank River; hangar door ripped off. Wind recorded at 72 miles per hour, with 1.25 inches of rain in 20 minutes.
New England coast	2			2		Northeaster	Most severe on Cape Cod, where winds up to 60 miles per hour were recorded. 2 persons swept to death from an ordinarily safe observation point. Utility service disrupted in several communities and steamboat schedules canceled. Small boats blown ashore. Driving hazardous because of electric wires and tree limbs blown across roads.
Miami, Ariz.	3	6–6:40 p. m.	[1]4		21,200	Heavy rain	Water and mud damaged buildings, automobiles, and property to the amount of $20,000; damage to highways, $1,200; path 3 miles long.
Cortaro, Ariz., vicinity of	3				8,000	do	Damage to highways and bridges.
Salt Lake City, Utah	3	3:30 p. m.	[1]1		5,000	Wind squalls	Cinder block home and outbuildings completely destroyed. Traffic interrupted by broken trees and numerous chicken coops.
Lawton, Okla., vicinity of	4	6:15 p. m.	[1]1			Hail	No crop loss. Much damage to composition roofs. Insurance companies expected about 2,000 claims. Loss considerable, not estimated; path 2 miles long.
Mexico and New Haven, N. Y.	4	8:30–9 p. m.				High wind, hail, electrical, and rain.	Village plunged into darkness for several hours because of widespread damage, including falling trees which blocked traffic and crippled utility wires. Large tree falling across highway caused rerouting of traffic. Loss in corn from hail.
Hutchinson, Kans.	5	2–5:30 a. m.		0		Small tornado	Funnel cloud observed did not reach ground. Some roofs and buildings damaged.
Terre Haute, Ind.	5	4 p. m.	[1]5		5,000	Hail and wind	Very large hail; no details.
Kyle Canyon, Nev.	5	1:05–5:05 p. m.	[1]17		7,500	Heavy rain and flood	Storm general over the Charleston division of the Nevada National Forest and surrounding country in the vicinity of Charleston Peak. 2.39 inches of rain recorded in 4 hours at Kyle Canyon River Station, 5 miles east of peak. Damage confined to washing out forest trails, and roads, water lines, and camp grounds.
Craig and Mays Counties, Okla.	5	9–10:15 p. m.			3,500	Heavy hail and wind.	Hail scattered; minor damage from wind.
Penasco County, N. Mex.	6	11 a. m.			5,000	Heavy hail	Loss in about 60 acres of vegetables.
Concord, N. C.	6	5:15–5:45 p. m.				Thunderstorm, wind, and hail.	Branches torn from trees; small trees uprooted; utility wires down; some plate glass windows smashed; hundreds of dollars' damage to signs. From 5:26 to 5:38 p. m., 1 inch of rain fell. Few hail pellets reported.
Clifton, Ariz.	6	6 p. m.	880		4,000	Heavy rain	Damage to streets and drains on east side of town; path 1 mile long.
Waterville to Beattie, Kans., and vicinities.	7	7:30 p. m.	[1]1		25,000	Violent wind	Barns and outbuildings damaged, $15,000; loss in crops, $10,000; path 20 miles long.
Massachusetts, southeastern portion, and Rhode Island.	7	8 a. m.–10 p. m.				Heavy rain	More than 6 inches of rain in 12 hours reported at some stations, with record or near-record 24-hour amounts at many places. Heavy damage by widespread floods; no estimate of loss available.
Milwaukee and Muskego, Wis.	9	2:25–3:15 a. m.			24,000	Electrical	At Muskego Beach, a picnic hall and 2 barns struck by lightning burned.
Imperial Valley, Calif., central portion.	11	11 a. m.–8 p. m.			40,000	Thunderstorm, heavy rain, and high wind.	Rainfall measured 2.11 inches in Imperial and 1.89 inches in Calexico. From 11:08 a. m., to 12:15 p. m., 1.96 inches were measured in Imperial. Sheds blown over, shingles torn from roofs, utility lines damaged by wind and lightning, and basements flooded. 13 airplanes badly damaged on private airport near Imperial. Motor traffic delayed. No serious loss in crops, as few are exposed at this time of year.
Harris to Bush City, Kans., and vicinities.	12–13	7:30 p. m.–3:30 a. m.	[1]2		220,000	Wind and hail	There were 3 separate storms, one about 7:30 p. m., another at 11:30 p. m., the last at 3 a. m., all occurring over the same path. There were some indications of a tornado, but vortex cloud not seen. About 30 to 40 barns and outbuildings demolished or badly damaged, with considerable damage to buildings in Garnett; path 25 miles long.
Niagara Falls, N. Y.	13	11:30 a. m.–12:15 p. m.	33	0	1,500	Tornado	Funnel cloud moved from northwest to southeast. 2 garages destroyed. A wind-blown boulder broke through the side of a house; 11 windows broken; furniture inside of building turned askew. At Six Corners, N. Y., the wind blew a man from the horse he rode.
Fisher, Minn., and vicinity	15	11 p. m.	[1]6		5,000	Hail	Some loss in sugar beets, corn, and flax. Small grains in shock or swath considerably beaten.
Rochester, Minn., and vicinity.	16	4:28 p. m.	[1]5		20,000	do	Several windows broken; roofing, greenhouses, and a roller rink tent damaged; automobile tops punctured. Loss in growing crops.
Fairmont, Minn., vicinity of	16	5:30–6:30 p. m.	[1]6		115,000	Thundersqualls	Number of barns, outbuildings, silos, and windmills wrecked, and many residences damaged. Poles and wires down; many trees uprooted; 3 cattle killed; more than 1,000 acres of corn badly lodged.
Palmer to Central City, Nebr.	16	6 p. m., C. S. T.	[1]3		250,000	Heavy hail and wind.	In a strip 25 miles long and a mile wide, loss in corn estimated at $200,000. Barn wrecked by wind; some trees blown down; much damage to buildings at fair grounds.
York, Nebr., 5 miles north	16	6–7 p. m.			5,000	Electrical	Barn and other buildings burned.
Fond du Lac County, Wis., northern and central portions.	16	8–10 p. m.			61,000	Thunderstorm and high wind.	Barns and other buildings destroyed or damaged, $50,000; loss in growing corn, stored oats, barley, and hay, $10,000; 8 cattle and some poultry killed, $1,000. Many trees uprooted or broken; utility service interrupted in the area southward over Waukesha and Milwaukee Counties.
Nobles County, Minn., northeastern portion.	16	P. m.			25,000	Hail	Loss in corn and soybeans; roof of hog house punctured.
Marathon County, Wis.	16	do			5,000	Electrical	Barn, including 50 tons of hay and 700 bushels of oats, burned.
Wichita, Kans., and vicinity	17	3 p. m.	490		57,000	High wind	At the airfield 3 miles southwest of Wichita, 11 planes and a hangar were damaged; some damage in Beulah Park in south Wichita; path 2 miles long.

See footnote at end of table.

SEVERE LOCAL STORMS FOR AUGUST 1946—Continued

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
	August 1946						
Mankato, Minn., vicinity of	17	6:40 p. m.	440	11	225,000	Tornado	Buildings on 8 farms and 3 houses and buildings of the Great Lakes Pipeland Plant wrecked or badly damaged. Tourist camp demolished; number of automobiles and road graders blown off road; much poultry, including several thousand turkeys, and a number of livestock perished. Hundreds of trees uprooted; poles and wires down; loss in growing crops. Storm moved from southwest to northeast over a path 10 miles long.
Braham, Minn., and vicinity	17	7:40 p. m.	[1] 2		60,000	Thunder squalls and hail.	Number of town and country buildings, as well as silos and windmills, wrecked or moved from their foundations and otherwise damaged; many trees, poles, and wires down; corn lodged; some livestock killed. Loss in growing crops, especially corn, from hail, $26,500, included in $60,000 estimate.
Posey County, Ind	17	7:45 p. m.	[1] 12			Wind and hail	Buildings damaged; loss in crops.
Wells, Minn., and vicinity	17	7:48 p. m.	200		700,000	Tornado	Buildings on 2 farms wrecked or badly damaged; parochial shoool, rectory, and church partly destroyed; 2 town houses and a number of garages demolished; public school building and some houses damaged. Nearly every building in the business section of this district damaged; some entirely destroyed. Poles and wires down; hundreds of trees uprooted; much poultry, especially turkeys, and some livestock perished. Loss in growing crops. 25 persons injured, 4 seriously. Storm moved from southwest to northeast over a path 5 miles long.
Galena, Kans	17	8 p. m.	200		50,000	High wind	Theater damaged; in smaller buildings windows were blown in; some roofs blown off. 3 persons injured; path 4 miles long.
Dunn County, Wis., eastern portion.	17	10.45–11:30 p. m.	[1] 1½		5,500	Hail	Loss in corn, soybeans, tobacco, and garden crops, $5,000; damage to roofs, windows, and automobiles, $500; path 7 miles long.
Rose Hill, Va	17					Excessive rain	Considerable damage to grassland on mountainside due to landslide. 1 road completely washed out; gullies 3–4 feet deep. About 5 inches of rain fell in 9 hours.
Massachusetts, Connecticut Valley of Hampshire County.	23	3–3:30 p. m.			150,000	Hail	Loss in about 350 acres of tobacco. Only ⅓ of harvest completed when storm occurred.
Cheyenne, Wyo	26	1:02–1:45 a. m.			100,000	Heavy rain	1.45 inch of rain fell in 43 minutes; 0.98 inch of this fell in a 10-minute period, breaking previous records for falls for 5- and 10-minute periods. This was also the heaviest rainfall for periods of 3 hours or less in August. Damage confined to flooded cellars and basement apartments in the eastern section of the city.
Reedsville, Browns Summit, Gibsonville, and Cedar Grove, N. C., and vicinities.	26	2–4 p. m.	[1] 2–3		900,000	Severe hail	Storm moved from Virginia southward into Rockingham County, sweeping a 2-mile strip across the county southward into Guilford County. The devastated belt was more than 40 miles long in Rockingham and Guilford Counties, making a total of more than 80 square miles affected. The hailstones, bullet-sized, were pelted through heavy rain. Orange County reported this to be the worst hailstorm in years through the Cedar Grove section of the county, causing much loss in remaining field crops. Principal loss in corn and tobacco. Fortunately, most of latter crop harvested. Hail 1¼ inches deep in some areas. Crop loss in Guilford County, $300,000; in Rockingham County $600,000.
Albuquerque, N. Mex., east of	26	3:30 p. m.				Heavy rain	Rain of almost cloudburst proportions flooded highways and basements.
Lucketts, Va	26	4:30 p. m.	[1] 2		500	Hail	Hailstones heavy; loss in corn.
Pinehurst, N. C., 3½ miles west-northwest.	26	6:27 p. m., E. S. T.				Wind and hail	8 steel towers of power transmission lines toppled; 40 trees uprooted; hail reported ankle-deep.
Pueblo, Colo	26	6:50–8:20 p. m.			65,000	Flood	Basements flooded; power, telephone, and railroad service disrupted; roads and bridges washed out. A 12-car trainload of cement derailed, and cement scattered over a mile area as the result of a washed-out culvert; train service disrupted for several hours.
Maine Coast, York Harbor to Wells.	26	7 p. m.–midnight			250,000	Heavy rain, cloudburst, flood, and wind.	8 inches of rain recorded in non-standard gages. Heaviest flood damage at amusement center of York Beach, where many parked cars were inundated. Store cellars filled with water, ruining stored stock; water rose to 4 feet on ground floor of many stores. Other losses to small boats and bridges washed out. York Beach damage, $300,000; other damage $50,000. Flood due to combination of extremely heavy rains and incoming high tide driven by storm winds.
Hagerman, N. Mex	28	P. m.				Heavy rain, electrical.	2 barns destroyed by lightning.

[1] Miles instead of yards.

LATE STORM REPORTS FOR JULY 1946

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
	July 1946						
Appanoose, Monroe, Davis, Wapelle, and Wahaska Counties, Iowa.	16–17	4 p. m.		5	$350,000	Heavy rain and flood.	Small streams flooded; bridges, culverts, and railroad tracks washed out. Flash flood occurred in lower Des Moines River. Damage in Monroe and southeastern Mahaska Counties estimated at $350,000. Not quite as much in other areas. 4 persons drowned near Albia as automobile plunged into creek at washed-out bridge site. Railroad man killed in accident indirectly due to storm. 24-hour rainfall measured from 4.36 to 7.70 inches at different points.
Hancock County, Iowa	18	9 p. m.	[1] 2			Hail	Loss in crops several hundred thousand dollars, not estimated; path 12 miles long.
Jasper County, Iowa	27				1,500	Rain and flood	Basement flooded; small creeks overflowed.
Lyon County, Iowa	28	7:30 p. m.			600	Hail	Loss in crops.
Morland, Kans., and vicinity	29				8,000	High winds	Loss in crops, $5,000; property damage, $3,000.
Plymouth to Sioux Counties, Iowa.	29	P. m.	[1] 12		250,000	Hail and wind	Hail fell over an irregular area, 12 miles across at its greatest width, from near Seney, in Plymouth County, along and on both sides of Floyd River to Newkirk and Hospers in Sioux County. Greatest damage occurred in an area about 6 miles square and 2 miles south and west of Newkirk and Hospers. In the worst area some corn and soybeans were total loss.

[1] Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR AUGUST 1946

[Solar Radiation Investigations Section, I. F. HAND in Charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observations and to summaries of data, are given in the MONTHLY WEATHER REVIEW, vol. 72, page 43, January 1944. A list of pyrheliometric stations is given on page 45 of the same REVIEW.

TABLE 1.—*Solar radiation intensities during August 1946*

[Gram calories per minute per square centimeter of normal surface]

Date	Sun's zenith distance										
	7:30 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p.m.
	75th mer. time	Air mass									75th mer. time
		A. M.				*1.0	P. M.				
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
MADISON, WIS.											
1946	*mb.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Aug. 1	13.7	0.40	0.48	0.64	0.70						15.3
Aug. 3	17.7	.30	.35	.47	.60	0.98					22.6
Aug. 6	14.8	.64	.74	.84	1.02	1.24					14.2
Aug. 7	13.2	.52	.64	.76	.96	1.21					13.7
Aug. 9	20.3	.45	.55	.74	.94	1.36					15.3
Aug. 13	12.3	.41	.44	.53	.75	1.12					13.7
Aug. 19	12.7	.74	.87	.98	1.18	1.36					13.7
Aug. 21	16.5	.73	.88	1.03							15.8
Aug. 22	12.7	.66	.77	.91	1.08	1.29					13.3
Aug. 24	11.8	.39	.47	.62	.73	1.01					12.7
Aug. 26	13.2	.45	.57	.70	.84	1.18					14.2
Aug. 29	8.1	.86	.98	1.10	1.24	1.43					7.8
Aug. 31	11.4	.59	.73	.88	1.06	1.30					11.0
Means		.55	.65	.78	.92	1.23					
Departures		−.10	−.11	−.12	−.15	−.08					
LINCOLN, NEBR.											
Aug. 10	15.3					1.31					16.4
Aug. 15	22.6					1.26	1.01	0.84	0.69		22.6
Aug. 19	13.7				0.97	1.34	1.10	.95	.84	0.73	16.9
Aug. 20	15.3				1.08	1.25					17.7
Aug. 21	16.9					1.27					19.6
Means					(1.02)	1.29	(1.06)	(.90)	(.76)	(.73)	
Departures					−.07	−.02	.00	+.03	+.03	+.11	
CLIMAX, COLO.											
Aug. 1				1.14	1.31						
Aug. 2				1.12	1.30						
Aug. 3							1.24	1.02	0.92	0.82	
Aug. 4			1.08	1.18	1.32	1.52	1.28	1.10	.94	.80	
Aug. 6				1.10	1.26						
Aug. 8					1.34	1.47	1.29	1.12	1.00	.92	
Aug. 9					1.32	1.68	1.32	1.12	1.00	.92	
Aug. 10					1.32						
Aug. 15					1.34	1.52					
Aug. 16					1.37	1.52	1.36		1.04	.94	
Aug. 17				1.20	1.31						
Aug. 18					1.26						
Aug. 19					1.30	1.51		1.14	1.04	.90	
Aug. 20				1.14	1.30						
Aug. 24						1.52		1.14			
Aug. 25						1.51	1.31	1.06	.84	.82	
Aug. 26					1.35			1.14	1.02	.91	
Aug. 28					1.31	1.42		1.19	1.10		
Aug. 29						1.55	1.37	1.18	1.12		
Aug. 30					1.37	1.51	1.32				
Aug. 31					1.33						
Means			(1.08)	1.15	1.32	1.52	1.31	1.12	1.00	.88	

TABLE 1.—*Solar radiation intensities during August 1946*—Con.

[Gram calories per minute per square centimeter of normal surface]

Date	Sun's zenith distance										
	7:30 a.m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p.m.
	75th mer. time	Air mass									75th mer. time
		A. M.				*1.0	P. M.				
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
TABLE MOUNTAIN, CALIF.											
1946	*mb.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*mb.*
Aug. 2					1.32						
Aug. 3					1.27						
Aug. 7					1.30						
Aug. 8					1.27						
Aug. 12					1.30						
Aug. 13		1.05	1.14	1.24	1.36	1.49					
Aug. 14					1.42						
Aug. 16					1.42						
Aug. 17					1.41						
Aug. 18					1.30						
Aug. 23					1.34						
Aug. 24					1.45						
Aug. 25					1.44						
Aug. 26		1.15	1.24	1.33	1.44	1.56					
Aug. 27					1.44						
Aug. 28					1.45						
Aug. 29					1.42						
Aug. 30					1.40						
Aug. 31					1.45						
Means		(1.10)	(1.19)	(1.28)	1.38	(1.52)					
BLUE HILL, MASS.											
Aug. 3	13.1	0.68	0.79	0.96	1.12	1.35		0.90	0.76	0.63	15.1
Aug. 8	18.0						1.01	.81	.66	.55	21.0
Aug. 9	18.9	.51	.61	.71	.78	1.18	.86		.33	.29	18.3
Aug. 11	17.7	.60	.71	.81	.98		1.20	1.06	.94	.85	16.5
Aug. 15	14.4				.99				.40	.31	17.3
Aug. 18	18.4				.93	1.30	1.14	.98	.83	.73	16.9
Aug. 24	16.0				1.01		1.06	.81	.68	.58	13.7
Aug. 25	13.6	.80	.92	1.02	1.18						16.0
Aug. 28	15.3	.61	.73	.82	1.02						14.7
Aug. 30	9.1							.92		.79	10.6
Aug. 31	9.4					1.40	1.07	.88	.75		10.7
Means		.64	.75	.86	1.00	1.31	1.06	.91	.67	.59	
Departures		−.01	−.03	−.02	−.04	+.01	+.03	+.05	−.02	.00	
BOSTON, MASS.											
Aug. 9	19.0				0.83						16.5
Aug. 28	15.3				.95						15.3
Means					(0.89)						
Departures					.00						
RATIO, BOSTON/BLUE HILL, ON COMPARABLE DATES											
					(0.99)						

* Extrapolated.

TABLE 2.—*Daily totals and weekly means of solar radiation (direct+diffuse) received on a horizontal surface*

[Gram calories per square centimeter]

Date	Washington, D. C.	Madison, Wis.	Lincoln, Nebr.	East Lansing, Mich.	New York, N. Y.	Fresno, Calif.	Fairbanks, Alaska	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Newport, R. I.	State College, Pa.	Put-in-Bay, Ohio	Davis, Calif.	Tooele, Utah	New Orleans, La.	Toronto, Canada	Boulder, Colo.
1946	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*	*cal.*
July 30	675	298	673	221	508	752	479	588	364	601	288	619	636	444	589	497	504	718	574	326	195	443
July 31	484	648	670	560	363	732	292	649	358	348	656	636	630	382	394	206	654	722	742	251	519	355
Aug. 1	324	488	449	553	264	709	.....	645	6	548	647	462	606	28	102	149	654	694	744	367	115	553
Aug. 2	295	287	595	494	325	706	254	501	78	192	636	467	620	119	157	149	609	717	740	465	418	548
Aug. 3	528	589	643	403	360	678	172	549	610	202	640	571	596	606	611	246	602	664	746	502	.....	550
Aug. 4	639	688	603	493	475	674	154	599	434	521	507	570	596	476	458	406	405	722	628	443	.....	576
Aug. 5	555	147	360	409	212	714	496	444	361	575	620	536	614	428	402	507	580	720	471	440	.....	628
Means	500	449	570	448	358	709	308	568	316	427	570	552	614	355	388	309	572	708	664	400	312	522
Departures	+17	−31	+52	−1	−102	+45	−38	+28	−95	−20	+1	+9	+54	−141	−122	−157	+45	+54	+41	−30	.....	+22
Aug. 6	384	644	538	429	213	730	483	645	470	339	619	604	614	529	385	71	440	690	598	533	407	411
Aug. 7	236	586	608	571	49	707	258	416	15	374	648	453	563	31	38	173	652	692	730	585	553	613
Aug. 8	660	396	536	174	610	685	285	420	395	493	633	501	524	495	422	572	244	692	730	585	553	613
Aug. 9	566	509	581	393	363	645	509	476	538	534	626	522	517	594	576	493	433	679	704	589	384	679
Aug. 10	439	423	668	314	208	651	516	716	247	502	589	332	580	271	357	468	350	632	516	548	536	634
Aug. 11	531	550	466	298	621	649	462	646	553	576	177	571	470	544	612	327	537	655	329	404	395	317
Aug. 12	405	500	82	530	295	649	223	215	386	547	569	589	592	354	528	414	338	677	676	557	375	243
Means	460	528	497	387	337	674	391	505	372	481	552	510	551	402	417	360	428	674	612	551	455	478
Departures	+5	+54	+4	−50	−86	+40	+59	−19	−29	+38	+3	−5	+20	−83	−67	−114	−72	+3	+9	+117	.....	−8
Aug. 13	386	615	235	464	122	693	100	88	157	96	628	561	596	189	141	274	636	670	584	278	329	412
Aug. 14	659	311	307	521	339	687	127	201	33	134	618	577	590	81	150	624	614	656	450	329	567	448
Aug. 15	579	247	641	364	327	679	161	354	480	320	600	626	586	622	549	496	279	656	624	473	361	422
Aug. 16	96	514	562	411	245	678	167	519	375	352	601	596	592	375	529	80	375	670	691	417	294	531
Aug. 17	524	593	646	400	380	686	353	591	346	521	602	585	586	393	428	343	172	640	662	603	159	392
Aug. 18	272	557	667	406	200	670	463	561	559	262	600	474	559	596	477	178	424	552	680	410	559	514
Aug. 19	488	546	662	399	70	602	433	695	17	593	484	569	505	54	46	406	576	630	651	439	562	600
Means	429	483	532	424	240	670	258	430	281	325	590	570	574	330	332	343	439	639	620	421	407	474
Departures	−15	+28	+41	0	−147	+51	−51	−47	−101	−119	+69	+78	+45	−139	−117	−101	−45	+24	+27	+13	.....	+22
Aug. 20	638	573	599	396	470	600	331	680	462	587	313	432	403	499	448	502	534	623	526	591	298	536
Aug. 21	463	372	547	276	224	534	189	440	428	501	486	304	522	446	493	586	502	618	501	621	390	284
Aug. 22	564	591	188	423	403	634	199	155	264	512	417	472	536	394	462	481	655	620	403	.....	410	283
Aug. 23	438	490	428	486	254	644	332	134	35	524	384	498	547	62	47	466	630	590	578	388	296	233
Aug. 24	612	543	415	355	575	647	308	53	430	421	460	475	561	567	567	432	570	605	452	430	429	492
Aug. 25	431	538	153	505	589	637	414	440	516	530	384	349	559	585	603	564	656	623	637	313	495	416
Aug. 26	640	445	422	476	545	643	223	540	408	570	523	568	558	500	517	480	629	602	643	284	474	503
Means	541	507	393	417	437	620	285	349	363	534	424	442	526	436	448	502	597	612	534	438	395	393
Departures	+113	+61	−75	+22	+63	+21	−1	−119	−2	+93	−99	−64	+5	−42	−6	+52	+127	+19	−58	+39	.....	−19
Aug. 27	584	500	231	375	453	637	280	552	16	550	484	530	552	28	60	563	564	612	654	338	551	142
Aug. 28	535	298	198	102	450	651	414	240	473	218	345	574	484	540	535	490	454	556	590	261	181	158
Aug. 29	245	470	516	368	222	654	407	659	260	392	446	584	572	230	256	133	131	601	675	578	374	178
Aug. 30	511	531	528	360	541	652	388	563	385	554	537	532	589	366	148	451	536	585	651	448	366	469
Aug. 31	559	570	478	466	485	654	338	607	477	568	524	547	594	536	486	474	568	576	638	584	405	490
Sept. 1	575	597	586	213	458	627	228	.....	489	543	466	551	581	531	525	432	274	553	524	560	250	.....
Sept. 2	584	450	410	427	303	276	118	.....	331	471	519	574	580	380	460	279	593	557	630	564	436	526
Means	513	488	421	330	416	593	310	.....	347	471	474	556	565	373	353	403	446	577	622	476	366	327
Departures	+88	+75	−18	−39	+61	+22	+63	.....	−14	+43	−17	+65	+72	−34	−65	−40	+1	+12	+29	+56	.....	−107

ACCUMULATED DEPARTURES ON SEPT. 2, 1946

	+2,569	+3,731	−1,169	+1,974	−8,372	+3,983	.....	.....	+98	0	−1,603	.....	−259	−2,408	−2,254	+3,815	.....	+10,248	−1,820	.....	.....	+2,415

ADDITIONAL DATA FOR TWIN FALLS, IDAHO, JULY 1946

Week beginning—	Means	Departures
July 2	537	−71
July 9	639	+23
July 16	641	+23
July 23	519	−54

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR AUGUST 1946

By Lucy T. Day

[Equatorial Division, U. S. Naval Observatory]

[Communicated by the Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day under Mount Wilson group number, longitude, latitude, area of spot or group, and spot count, are included respectively; number of groups, assumed longitude of center of the disk, assumed latitude of center of the disk, total areas of spots and groups, and total spot count.

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Aug. 1	11 34	8139	−33	87	−26	45	12	2	G	U. S. Naval.
		8137	−29	91	−30	46	291	5		
		8137	−23	97	−29	42	121	18		
		8141	−21	99	−19	32	12	4		
		8136	−16	104	+10	17	388	1		
		8137	−15	105	−28	37	388	3		
		8136	−10	110	+ 9	10	48	7		
		8135	−7	113	−25	32	170	1		
		8136	−3	117	+9	3	388	11		
		8135	0	120	−25	31	533	2		
		8140	+4	124	+17	12	6	1		
		8138	+23	143	+13	23	48	7		
		8134	+30	150	+13	31	218	11		
		8129	+67	187	+23	68	242	2		
		8129	+71	191	+24	71	1,067	9		
		8129	+80	200	+22	80	776	7		
		(9)		(120)	(+6)		4,708	91		
2	15 41	8142	−63	41	+18	63	6	2	F	Do.
		8137	−13	91	−29	37	291	10		
		8137	−7	97	−29	36	121	7		
		8141	−7	97	−18	26	73	5		
		8141	−3	101	−17	24	73	5		
		8137	+1	105	−29	35	388	4		
		8136	+1	105	+11	5	339	3		
		8135	+7	111	−26	32	121	2		
		8136	+10	114	+10	11	48	12		
		8135	+13	117	−26	36	48	5		
		8136	+14	118	+10	15	388	5		
		8135	+15	119	−26	36	461	1		
		8138	+38	142	+12	38	24	4		
		8134	+45	149	+12	45	145	17		
		8129	+88	192	+23	88	679	3		
		(8)		(104)	(+6)		3,205	85		
3	10 40	8144	−78	16	+16	78	291	1	F	Do.
		8137	−1	93	−30	36	194	5		
		8141	+3	97	−20	26	97	3		
		8137	+4	98	−30	36	97	6		
		8143	+5	99	+16	11	12	4		
		8141	+10	104	−19	27	73	4		
		8137	+11	105	−30	38	291	7		
		8136	+11	105	+10	12	388	1		
		8135	+19	113	−27	38	73	6		
		8136	+20	114	+9	20	97	18		
		8136	+20	114	+15	23	6	5		
		8136	+26	120	+9	26	485	1		
		8135	+26	120	−27	42	436	1		
		8138	+51	145	+13	51	12	3		
		8134	+56	150	+12	56	85	5		
		(8)		(94)	(+6)		2,637	70		
4	11 32	8146	−78	2	−20	80	242	1	F	Do.
		8146	−75	5	−21	78	97	1		
		8144	−64	16	+16	64	388	1		
		8137	+14	94	−30	39	242	14		
		8143	+19	99	+15	21	6	2		
		8141	+20	100	−20	33	145	16		
		8141	+23	103	−19	34	24	3		
		8136	+23	103	+9	24	291	3		
		8137	+27	107	−29	44	242	6		
		8136	+30	110	+9	30	48	5		
		8136	+36	116	+8	36	48	5		
		8135	+35	116	−27	50	73	7		
		8135	+40	120	−25	51	436	1		
		8136	+40	120	+10	40	436	1		
		8134	+70	150	+12	70	145	11		
		(8)		(80)	(+6)		2,863	77		
5	10 47	8146	−63	4	−20	68	824	1	G	Do.
		8144	−49	18	+16	50	242	1		
		8144	−47	20	+14	47	6	1		
		8145	−33	34	−16	40	24	3		
		8137	+27	94	−30	45	291	22		
		8141	+30	97	−21	41	97	9		
		8141	+36	103	−20	45	48	5		
		8136	+36	103	+9	36	267	1		
		8137	+38	105	−30	52	194	4		
		8136	+40	107	+10	40	24	6		
		8135	+50	117	−26	60	388	3		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR AUGUST 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Aug. 5	10 47	8136	+53	120	+9	53	388	3	G	U. S. Naval.
		8134	+84	151	+12	84	97	4		
		(8)		(67)	(+6)		2,890	63		
6	11 9	8150	−70	344	−18	74	12	1	G	Do.
		8150	−69	345	−19	73	12	2		
		8149	−60	354	+16	60	12	1		
		8146	−50	4	−20	57	824	3		
		8148	−38	16	+22	41	12	1		
		8144	−36	18	+18	38	315	1		
		8145	−20	34	−15	29	12	3		
		8147	+9	63	+23	19	12	4		
		8137	+37	91	−29	51	291	11		
		8137	+41	95	−29	54	121	15		
		8141	+44	98	−20	51	48	8		
		8137	+48	102	−28	60	12	1		
		8136	+50	104	+10	50	339	3		
		8137	+51	105	−28	62	242	3		
		8135	+65	119	−25	71	388	1		
		8136	+69	123	+9	69	12	4		
		8136	+70	124	+10	70	436	1		
		(11)		(54)	(+6)		3,100	63		
7	11 51	8150	−60	340	−19	65	48	6	G	Do.
		8150	−57	343	−18	62	121	7		
		8146	−39	1	−25	50	6	1		
		8146	−37	3	−20	45	824	11		
		8144	−23	17	+16	25	267	1		
		8151	−11	29	−10	19	24	7		
		8137	+50	90	−29	60	145	11		
		8137	+54	94	−29	65	97	10		
		8141	+60	100	−19	65	6	3		
		8136	+63	103	+9	63	291	3		
		8137	+67	107	−30	74	291	5		
		8136	+77	117	+9	77	48	6		
		8135	+80	120	−25	82	388	1		
		8136	+83	123	+9	83	388	1		
		(8)		(40)	(+6)		2,944	73		
8	11 1	8152	−80	307	−14	80	194	1	G	Do.
		8150	−48	339	−17	54	48	4		
		8150	−46	341	−18	52	24	6		
		8150	−43	344	−19	50	48	3		
		8146	−25	2	−22	38	582	1		
		8146	−25	2	−19	34	73	9		
		8146	−21	6	−19	33	73	1		
		8146	−20	7	−22	34	48	5		
		(*)	−13	14	+43	30	6	1		
		8144	−9	18	+16	13	291	1		
		8151	+3	30	−10	16	73	11		
		8145	+8	35	−15	23	6	3		
		8147	+37	64	+23	40	16	6		
		8137	+50	87	−30	68	48	6		
		8137	+67	94	−29	73	97	4		
		8136	+78	105	+9	78	194	4		
		8137	+83	110	−30	83	291	3		
		(10)		(27)	(+6)		2,112	69		
9	11 1	8152	−65	309	−14	68	194	1	G	Do.
		8150	−35	339	−16	42	48	5		
		8150	−27	347	−15	35	73	9		
		8149	−23	351	+16	25	97	10		
		8146	−12	2	−22	31	582	1		
		8146	−11	3	−19	28	97	6		
		8146	−7	7	−18	26	97	9		
		8146	−7	7	−22	30	73	6		
		8144	+4	18	+16	11	291	1		
		8144	+4	18	+19	13	6	1		
		8151	+17	31	−10	23	24	2		
		8151	+20	34	−10	26	12	1		
		8147	+49	63	+22	51	61	2		
		8147	+55	69	+21	55	48	1		
		8137	+75	89	−30	80	48	2		
		8137	+78	92	−28	82	97	1		
		(8)		(14)	(+6)		1,848	58		
10	11 21	8152	−50	311	−13	53	194	1	F	Do.
		8150	−20	341	−15	28	24	3		
		8150	−13	348	−15	25	48	3		
		8150	−11	350	−14	24	73	6		
		8149	−10	351	+17	15	121	1		
		8149	−5	356	+15	28	97	5		
		8146	+3	4	−20	26	679	10		
		8146	+5	6	−21	28	97	6		
		8146	+8	9	−17	26	97	6		
		8144	+18	19	+15	21	339	1		
		8151	+30	31	−10	34	12	2		
		8147	+65	66	+22	66	73	5		
		(7)		(1)	(+6)		1,854	49		
11	11 0	8152	−38	310	−13	43	145	1	G	Do.
		8153	−9	339	−18	27	6	3		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR AUGUST 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				U. S. Naval.
Aug. 11	11 0	8150	−8	340	−16	25	12	5		
		8150	−1	347	−16	23	6	3		
		8150	+3	351	−15	22	48	7		
		8149	+3	351	+17	13	267	1		
		8149	+9	357	+15	13	109	8		
		8146	+15	3	−22	31	485	1		
		8146	+15	3	−20	30	145	18		
		8146	+18	6	−22	33	109	13		
		8146	+23	11	−18	34	36	6		
		8144	+31	19	+15	33	315	1		
		8147	+76	64	+22	76	48	4		
		(7)		(348)	(+6)		1,731	71		
12	10 36	8155	−63	272	−24	60	12	6	F	Do.
		8154	−43	292	+22	45	12	7		
		8152	−25	310	−13	31	145	1		
		8153	+3	338	−17	25	6	4		
		8150	+15	350	−15	26	36	3		
		8149	+15	350	+17	19	291	4		
		8149	+23	358	+15	25	145	9		
		8146	+27	2	−22	39	485	1		
		8146	+28	3	−20	38	73	3		
		8146	+30	5	−22	41	48	5		
		8146	+35	10	−20	45	12	1		
		8144	+43	18	+15	44	315	1		
		(8)		(335)	(+6)		1,580	45		
13	8 44	8155	−53	270	−23	60	24	1	VG	Mt. Wilson.
		8155	−50	273	−22	58	24	2		
		8154	−30	293	+24	34	6	1		
		8156	−15	308	+22	21	12	2		
		8152	−11	312	−13	23	145	1		
		8150	+25	348	−16	34	12	3		
		8149	+28	351	+17	30	291	13		
		8150	+30	353	−13	36	24	5		
		8149	+32	355	+16	32	24	5		
		8149	+38	1	+16	39	194	1		
		8146	+40	3	−22	49	436	6		
		8146	+41	4	−19	48	73	3		
		8146	+44	7	−20	51	24	5		
		8146	+50	13	−18	55	12	1		
		8144	+56	19	+15	57	194	1		
		8144	+56	19	+17	56	97	6		
		(8)		(323)	(+7)		1,502	56		
14	11 2	8160	−80	228	+10	80	97	5	G	U. S. Naval.
		8159	−39	269	−17	46	36	7		
		8155	−37	271	−23	47	12	4		
		8158	−35	273	+29	40	24	3		
		8158	−35	273	+33	42	6	1		
		8154	−16	292	+23	23	12	3		
		8156	0	308	+24	17	6	4		
		8152	+3	311	−13	20	145	1		
		8157	+15	323	−16	27	24	2		
		8149	+41	349	+17	42	291	10		
		8150	+46	354	−16	50	12	2		
		8149	+47	355	+16	47	24	5		
		8149	+50	358	+16	50	206	1		
		8146	+55	3	−22	61	485	1		
		8146	+55	3	−20	60	61	1		
		8144	+71	19	+16	71	242	2		
		(12)		(308)	(+7)		1,683	52		
15	10 30	8161	−88	207	+20	88	388	1	G	Do.
		8160	−74	221	+10	74	6	1		
		8160	−66	229	+10	66	73	12		
		8155	−25	270	−24	40	6	2		
		8159	−24	271	−16	33	6	1		
		8154	−3	292	+21	14	12	2		
		8156	+10	305	+22	18	24	4		
		8152	+16	311	−13	26	145	1		
		8157	+27	322	−16	37	24	7		
		8149	+54	349	+19	54	6	1		
		8149	+54	349	+17	54	291	1		
		8149	+61	356	+17	61	388	2		
		8146	+68	3	−22	71	533	1		
		8144	+85	20	+15	85	242	1		
		(11)		(295)	(+7)		2,144	37		
16	8 54	8163	−87	196	+20	87	194	1	G	Mt. Wilson.
		8161	−75	208	+20	75	339	8		
		8162	−74	209	+33	74	48	3		
		8160	−54	229	+11	54	73	20		
		8155	−12	271	−23	32	12	3		
		8159	−12	271	−15	25	12	4		
		8154	+9	292	+22	17	12	1		
		8152	+28	311	−13	35	121	1		
		8157	+39	322	−16	44	6	2		
		8157	+43	326	−16	48	6	2		
		8149	+68	351	+19	68	145	4		
		8150	+69	352	−13	71	73	7		
		8149	+74	357	+16	74	388	2		
		8146	+81	4	−22	83	388	2		
		(12)		(283)	(+7)		1,817	60		

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR AUGUST 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Aug. 17	9 36	8163	−85	184	+23	85	582	5	G	Mt. Wilson
		8163	−76	193	+22	76	24	3		
		8163	−73	196	+20	73	194	1		
		8161	−62	207	+22	62	24	3		
		8162	−61	208	+33	63	16	6		
		8161	−58	211	+21	59	145	6		
		8161	−58	211	+19	58	97	10		
		8160	−43	226	+12	43	73	1		
		8160	−40	229	+11	40	121	32		
		8152	+41	310	−13	45	109	1		
		8157	+52	321	−16	56	6	2		
		8149	+85	354	+16	85	339	3		
		(7)		(269)	(+7)		1,730	73		
18	9 25	8163	−72	184	+23	72	679	5	F	Do.
		8163	−62	194	+22	62	48	2		
		8163	−59	197	+20	59	145	1		
		8162	−49	207	+33	52	24	2		
		8161	−49	207	+22	50	48	5		
		8161	−47	209	+21	48	242	15		
		8160	−31	225	+13	32	121	20		
		8160	−26	230	+13	27	242	28		
		8164	−9	247	−17	27	12	5		
		8155	+12	268	−22	31	12	6		
		8159	+17	273	−14	28	6	1		
		8152	+56	312	−13	59	109	1		
		(8)		(256)	(+7)		1,688	91		
19	10 56	8163	−59	183	+23	60	727	12	G	U. S. Naval.
		8163	−49	193	+20	49	12	3		
		8163	−47	195	+20	48	121	1		
		8162	−40	202	+34	47	12	3		
		8162	−35	207	+31	41	24	5		
		8161	−34	208	+18	36	121	17		
		8161	−34	208	+15	35	24	1		
		8161	−30	212	+19	32	145	6		
		8160	−17	225	+12	19	145	16		
		8160	−12	230	+11	13	315	9		
		8152	+68	310	−15	70	97	1		
		(5)		(242)	(+7)		1,743	74		
20	10 42	8163	−46	183	+23	47	630	12	F	Do.
		8163	−41	188	+20	43	48	7		
		8163	−34	195	+19	36	97	1		
		8162	−27	202	+33	38	12	1		
		8162	−20	209	+30	30	24	5		
		8161	−20	209	+18	22	48	13		
		8161	−19	210	+14	21	121	2		
		8160	−4	225	+12	5	145	18		
		8160	+2	231	+10	3	145	1		
		8160	+4	233	+9	4	61	1		
		8159	+45	274	−15	50	12	1		
		8166	+60	289	+30	61	6	1		
		8165	+65	294	+18	65	16	5		
		8152	+80	309	−15	81	97	1		
		(8)		(229)	(+7)		1,462	72		
21	10 50	8163	−33	183	+23	36	630	12	F	Do.
		8163	−29	187	+21	31	48	7		
		8163	−22	194	+21	27	24	10		
		8163	−19	197	+20	22	145	1		
		8162	−12	204	+34	28	24	5		
		8162	−7	209	+31	26	12	3		
		8161	−7	209	+13	10	24	16		
		8161	−5	211	+20	13	97	8		
		8160	+10	226	+12	12	145	22		
		8160	+14	230	+11	14	194	15		
		8160	+17	233	+13	18	24	10		
		8160	+19	235	+9	19	48	1		
		8159	+38	274	−15	62	6	2		
		8165	+78	294	+18	78	97	4		
		8165	+82	298	+18	82	97	2		
		(6)		(216)	(+7)		1,615	118		
22	10 42	8170	−80	123	+10	80	291	1	G	Do.
		8169	−65	138	+18	65	6	1		
		8168	−41	162	+17	42	6	3		
		8163	−20	183	+23	25	582	10		
		8163	−17	186	+21	22	48	4		
		8167	−12	191	−18	25	6	1		
		8163	−10	193	+21	17	73	10		
		8163	−7	196	+20	15	121	1		
		8163	−1	202	+15	8	48	2		
		8162	+2	205	+33	25	24	4		
		8161	+5	208	+17	13	12	1		
		8161	+8	211	+20	15	97	5		
		8161	+12	215	+17	17	16	2		
		8160	+22	225	+12	23	97	19		
		8160	+28	231	+11	28	121	10		
		8160	+32	235	+10	32	24	1		
		(8)		(203)	(+7)		1,372	75		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR AUGUST 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Aug. 23	12 16	8170	−66	122	+9	66	436	1	VG	U. S. Naval
		8169	−51	137	+19	51	24	5		
		8168	−29	159	+17	31	6	3		
		8163	−10	178	+31	26	24	5		
		8163	−8	180	+24	19	242	10		
		8163	−7	181	+23	18	339	12		
		8163	−2	186	+21	14	48	6		
		8163	+1	189	+21	14	109	1		
		8167	+1	189	−15	23	12	5		
		8163	+3	191	+21	15	73	7		
		8163	+7	195	+20	15	121	1		
		8163	+12	200	+15	15	16	10		
		8162	+13	201	+32	28	24	3		
		8161	+20	208	+17	22	170	19		
		8161	+27	215	+15	28	73	4		
		8160	+37	225	+11	37	97	12		
		8160	+40	228	+10	40	97	9		
		8160	+47	235	+9	47	12	1		
		(8)		(188)	(+7)		1,923	114		
24	10 23	8171	−62	114	−23	68	12	1	G	Do.
		8171	−60	116	−21	66	24	1		
		8170	−51	125	+10	51	436	1		
		8169	−38	138	+19	40	73	6		
		8168	−17	159	+18	21	6	2		
		8163	+2	178	+24	18	48	6		
		8163	+3	179	+23	16	145	2		
		8163	+4	180	+22	16	145	13		
		8163	+5	181	+23	18	121	2		
		8163	+6	182	+22	17	218	4		
		8163	+10	186	+21	18	85	2		
		8163	+18	194	+20	22	145	2		
		8162	+25	201	+33	35	12	3		
		8161	+30	206	+21	32	12	1		
		8161	+35	211	+18	37	194	7		
		8161	+39	215	+15	39	73	2		
		8160	+51	227	+11	51	73	4		
		8160	+55	231	+12	55	97	2		
		(8)		(176)	(+7)		1,919	61		
25	10 46	8171	−49	114	−24	56	6	2	F	Do.
		8170	−39	124	+9	39	436	1		
		8170	−39	124	+6	39	6	1		
		8169	−27	136	+21	30	6	1		
		8169	−22	141	+17	23	12	3		
		8168	−1	162	+17	11	12	3		
		8163	+13	176	+24	20	12	1		
		8163	+18	181	+24	24	194	2		
		8163	+19	182	+22	23	291	8		
		8163	+25	188	+21	28	61	6		
		8163	+29	192	+21	31	48	5		
		8161	+32	195	+20	34	97	3		
		8161	+49	212	+18	49	97	10		
		8160	+65	228	+12	65	97	7		
		(7)		(163)	(+7)		1,375	53		
26	11 15	8172	−50	99	−23	57	73	4	F	Do.
		8172	−47	102	−23	54	85	3		
		8170	−26	123	+9	26	436	1		
		8169	−12	137	+18	17	12	3		
		8169	−9	140	+17	15	61	3		
		8163	+31	180	+23	34	194	2		
		8163	+32	181	+21	35	242	8		
		8163	+39	188	+20	40	48	6		
		8163	+43	192	+21	44	12	7		
		8163	+45	194	+20	46	48	4		
		8161	+61	210	+18	61	24	1		
		8161	+67	216	+15	67	12	1		
		8160	+78	227	+12	78	36	1		
		(6)		(149)	(+7)		1,283	44		
27	10 49	8172	−38	98	−23	48	170	10	G	Do.
		8172	−34	102	−23	46	121	8		
		8173	−24	112	+25	30	6	1		
		8173	−22	114	+23	27	6	3		
		8171	−19	117	−23	35	12	4		
		8170	−13	123	+9	14	436	1		
		8169	+3	139	+17	11	73	11		
		8163	+44	180	+23	46	145	2		
		8163	+45	181	+21	47	242	7		
		8163	+50	186	+21	51	24	3		
		8163	+58	194	+20	58	24	2		
		8161	+67	203	+17	67	6	1		
		(7)		(136)	(+7)		1,265	53		
28	10 53	8175	−45	78	−11	48	6	1	F	Do.
		8172	−25	98	−23	39	242	1		
		8172	−21	102	−23	37	218	9		
		8173	−13	110	+25	22	97	9		
		8171	−7	116	−21	29	24	6		
		8174	−5	118	+23	17	24	6		
		8170	0	123	+9	2	436	1		
		8169	+18	141	+17	21	6	2		
		8163	+57	180	+23	58	145	2		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR AUGUST 1946—Continued

Date	Eastern standard time	Mount Wilson group No.	Heliographic: Difference in longitude	Heliographic: Longitude	Heliographic: Latitude	Heliographic: Distance from center of disk	Area of spot or group	Spot count	Plate quality	Observatory
1946	h m		°	°	°	°				
Aug. 28	10 53	8163	+58	181	+21	59	242	7		U. S. Naval
		8163	+70	193	+19	70	6	1		
		(8)		(123)	(+7)		1,446	45		
29	9 16	8176	−76	35	−17	78	12	3	VG	Mt. Wilson.
		8175	−34	77	−12	38	61	5		
		8175	−29	82	−12	35	48	10		
		8172	−13	98	−23	33	170	7		
		8172	−8	103	−23	32	194	5		
		8173	−4	107	+26	20	73	12		
		8173	+1	112	+25	18	97	20		
		8174	+6	117	+23	17	73	14		
		8170	+13	124	+9	13	412	1		
		8169	+28	139	+17	30	36	10		
		8169	+32	143	+17	33	24	5		
		8163	+70	181	+23	71	97	11		
		8163	+73	184	+21	73	194	1		
		(8)		(111)	(+7)		1,491	104		
30	10 42	8179	−80	17	+15	80	194	1	G	Do.
		8176	−62	35	−18	67	6	2		
		8178	−58	39	+14	58	6	1		
		8178	−53	44	+14	53	6	1		
		8177	−32	65	+17	34	48	2		
		8177	−28	69	+18	30	145	11		
		8175	−20	77	−12	27	121	13		
		8175	−15	82	−11	23	121	10		
		8172	0	97	−23	30	109	6		
		8172	+5	102	−23	31	145	2		
		8173	+10	107	+26	21	145	12		
		8173	+13	110	+25	22	170	11		
		8174	+17	114	+23	23	36	6		
		8174	+19	116	+24	24	48	4		
		8170	+27	124	+9	28	436	1		
		8169	+43	140	+16	44	16	2		
		8163	+83	180	+23	83	145	1		
		8163	+85	182	+21	85	194	1		
		(11)		(97)	(+7)		2,001	87		
31	12 26	8182	−87	356	+17	87	121	1	G	Do.
		8181	−73	10	+16	73	24	3		
		8179	−65	18	+15	65	194	1		
		8180	−54	29	+9	54	12	1		
		8178	−38	45	+14	38	24	5		
		8177	−17	66	+17	20	194	11		
		8177	−11	72	+17	16	291	1		
		8175	−7	76	−12	21	97	6		
		8175	0	83	−11	18	145	5		
		8172	+14	97	−23	31	97	5		
		8172	+20	103	−23	35	73	2		
		8173	+23	106	+26	30	145	9		
		8173	+28	111	+25	34	121	6		
		8173	+30	113	+22	33	73	5		
		8174	+33	116	+25	38	48	3		
		8170	+41	124	+8	41	485	3		
		(11)		(83)	(+7)		2,144	67		

Mean daily area for 31 days = 2,047
Mean 10 g+s for 31 days = 152.9

*Not numbered.
VG = very good; G = good; F = Fair; P = poor.
g = number of groups; s = number of spots.

PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR AUGUST 1946

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland.]

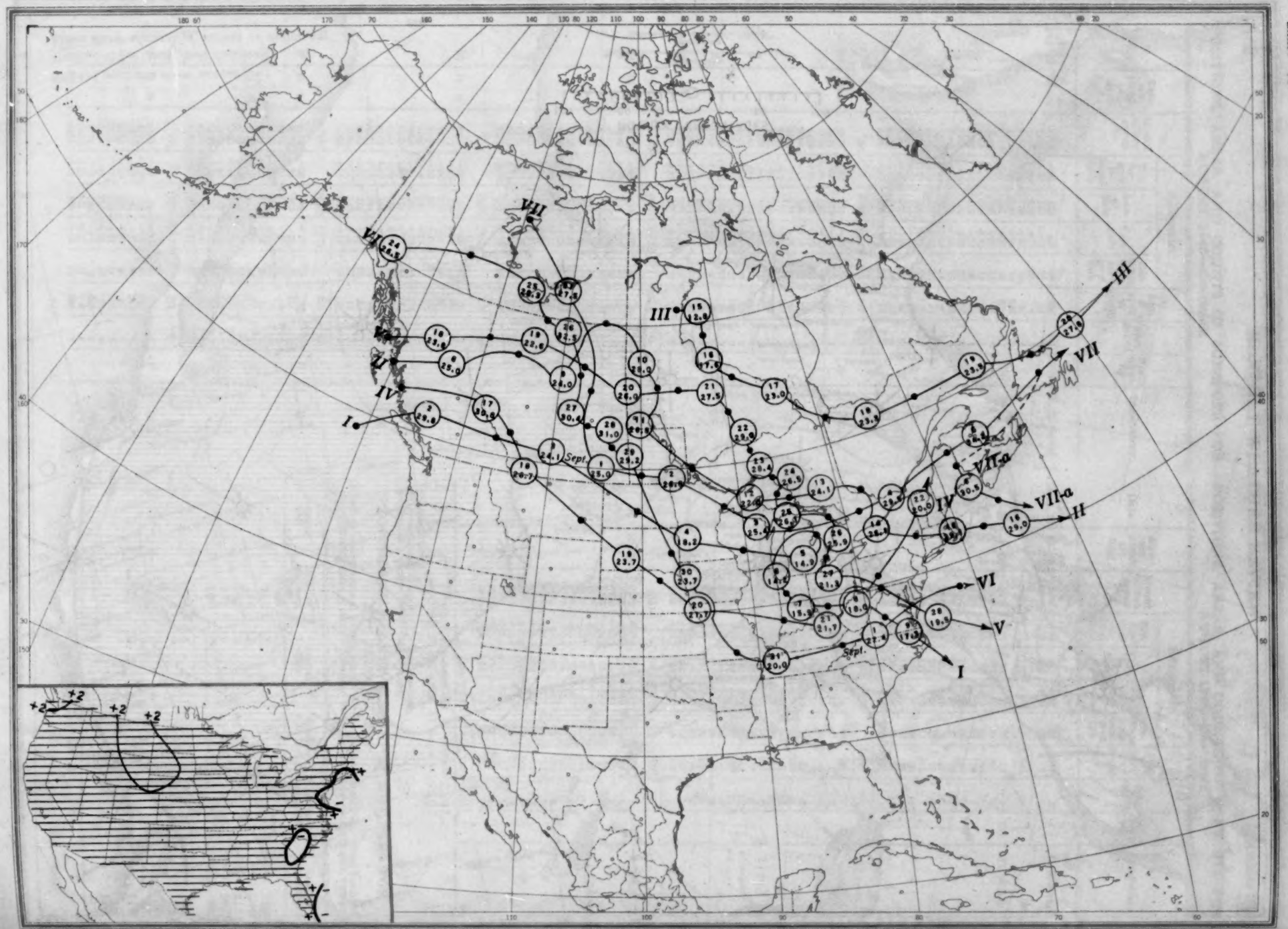
August 1946	Relative numbers	August 1946	Relative numbers	August 1946	Relative numbers
1	153	11	99	21	110
2	154	12	98	22	104
3	137	13	86	23	115
4	137	14	108	24	107
5	128	15	95	25	94
6	111	16	109	26	80
7	116	17	90	27	73
8	100	18	94	28	82
9	109	19	100	29	88
10	107	20	107	30	114
				31	119

Mean, 31 days = 107.2

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, August 1946

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, August 1946

Chart II. Tracks of Centers of Anticyclones, August 1946. (Inset) Departure of Monthly Mean Pressure from Normal

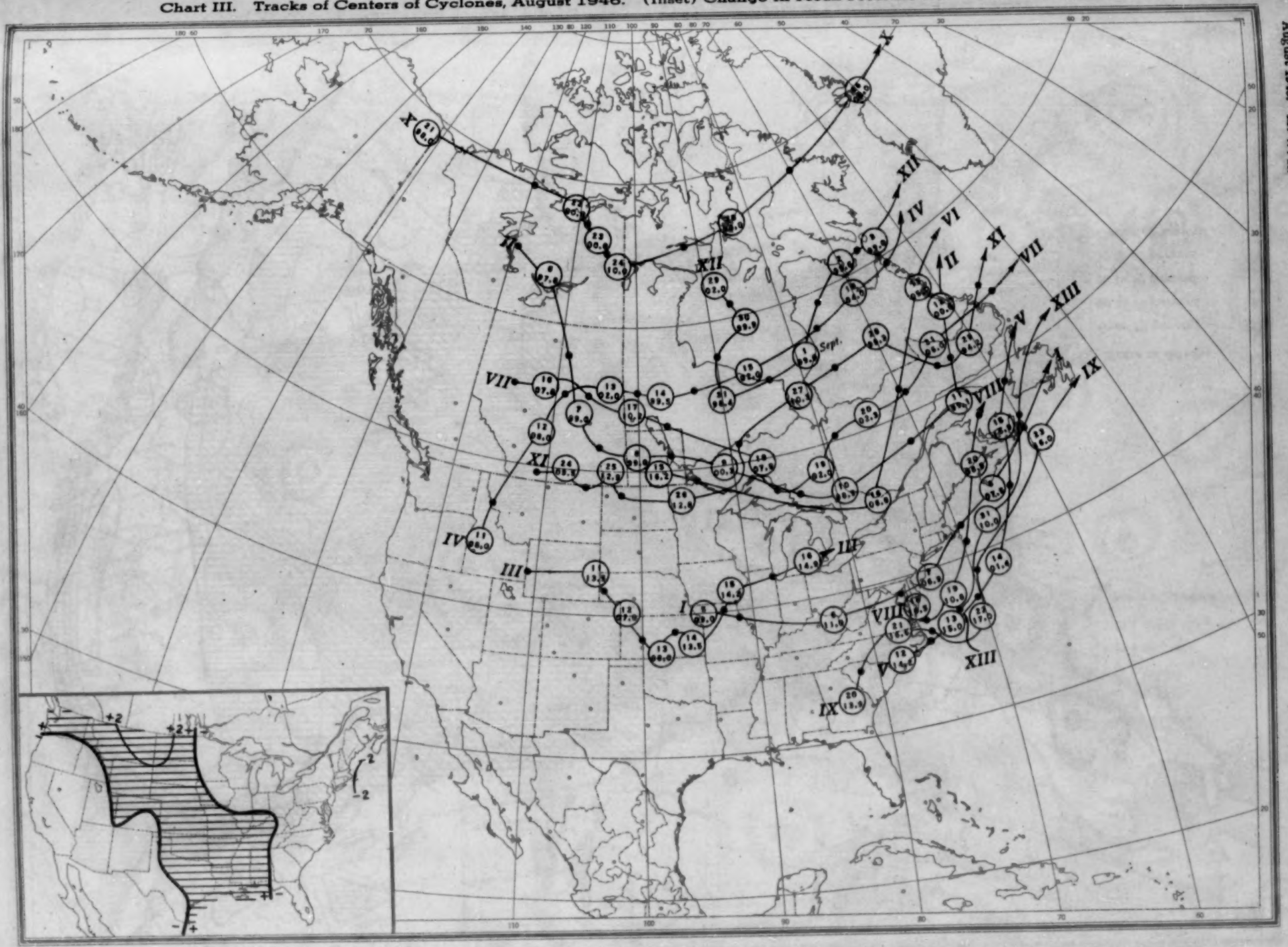


Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, August 1946. (Inset) Change in Mean Pressure from Preceding Month

Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

Chart III. Tracks of Centers of Cyclones, August 1946. (Inset) Change in Mean Pressure from Preceding Month



Circle indicates position of cyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (75th meridian time)

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, August 1946

Chart V. Total Precipitation, Inches, August 1946. (Inset) Departure of Precipitation from Normal

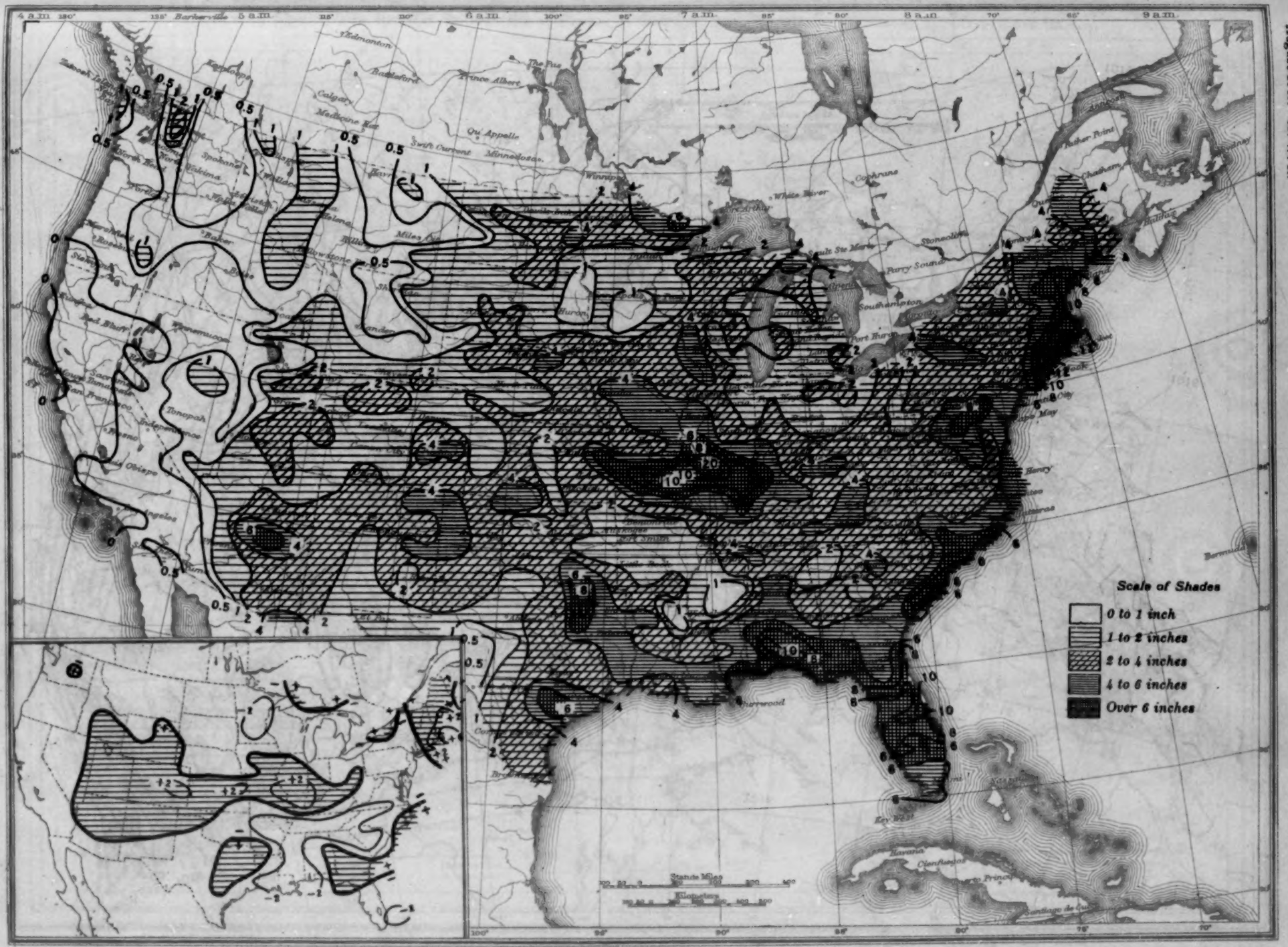


Chart VI. Isobars (mb.), at Sea Level and Isotherms (°F.) at Surface; Prevailing Winds, August 1946

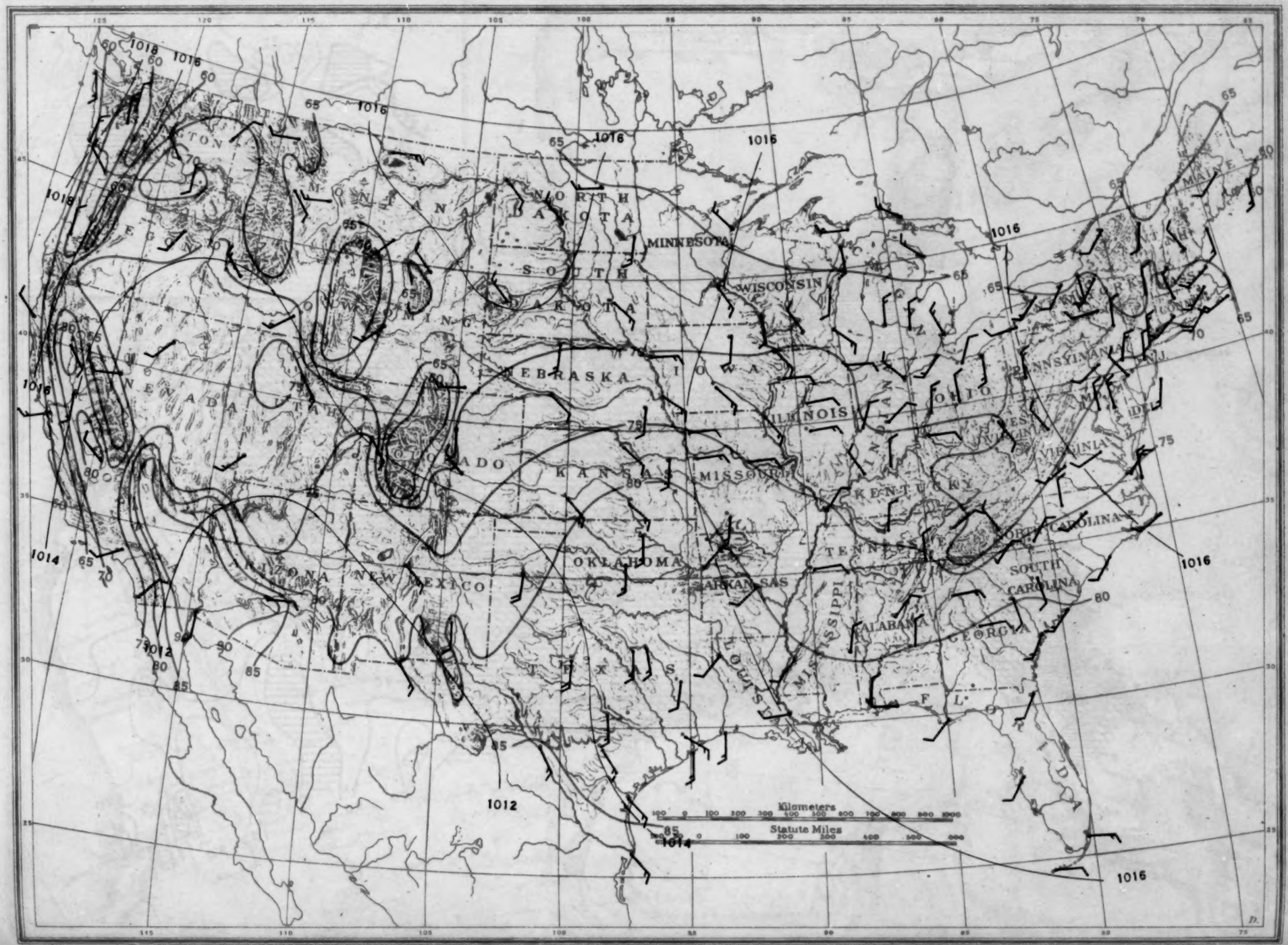
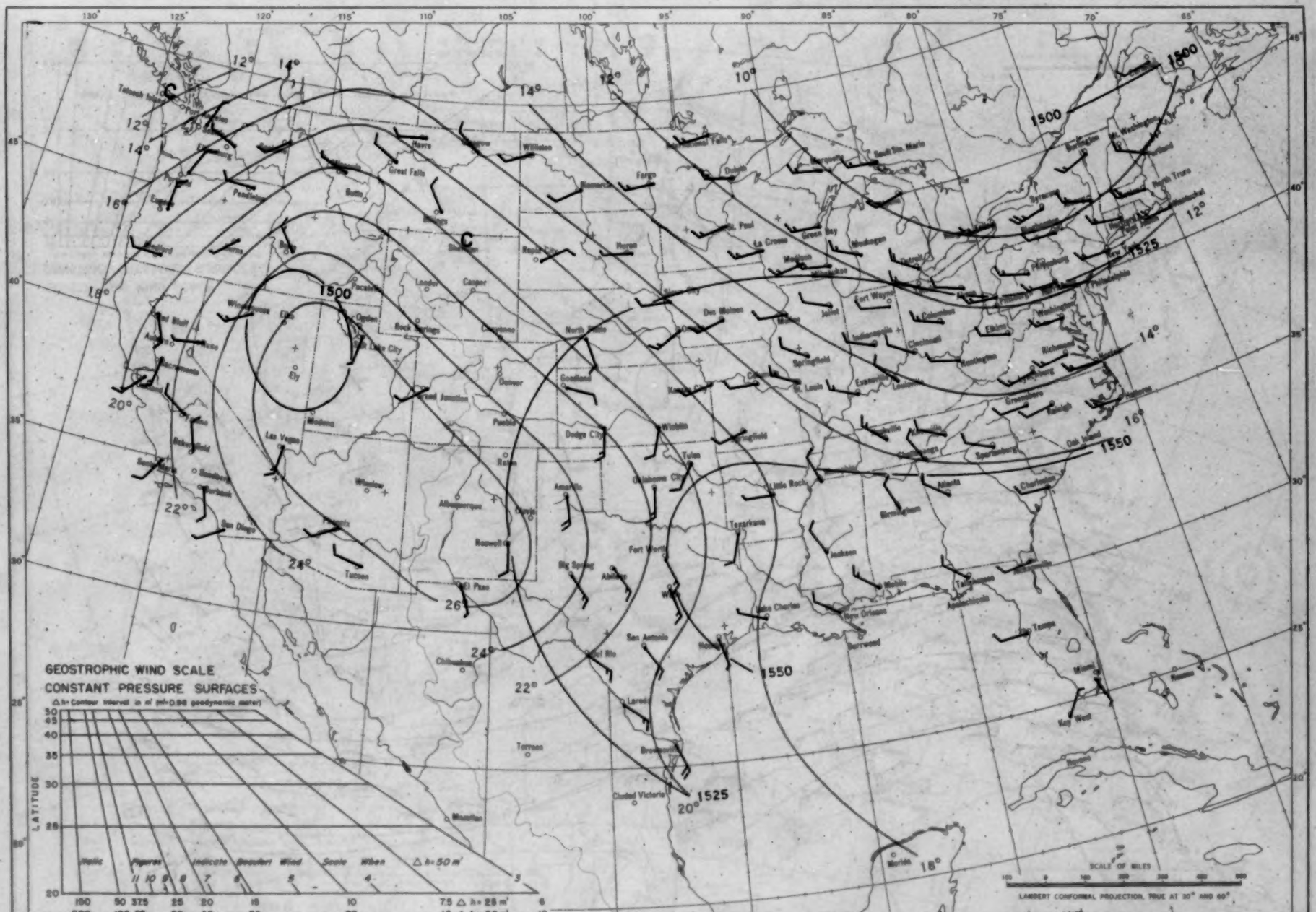
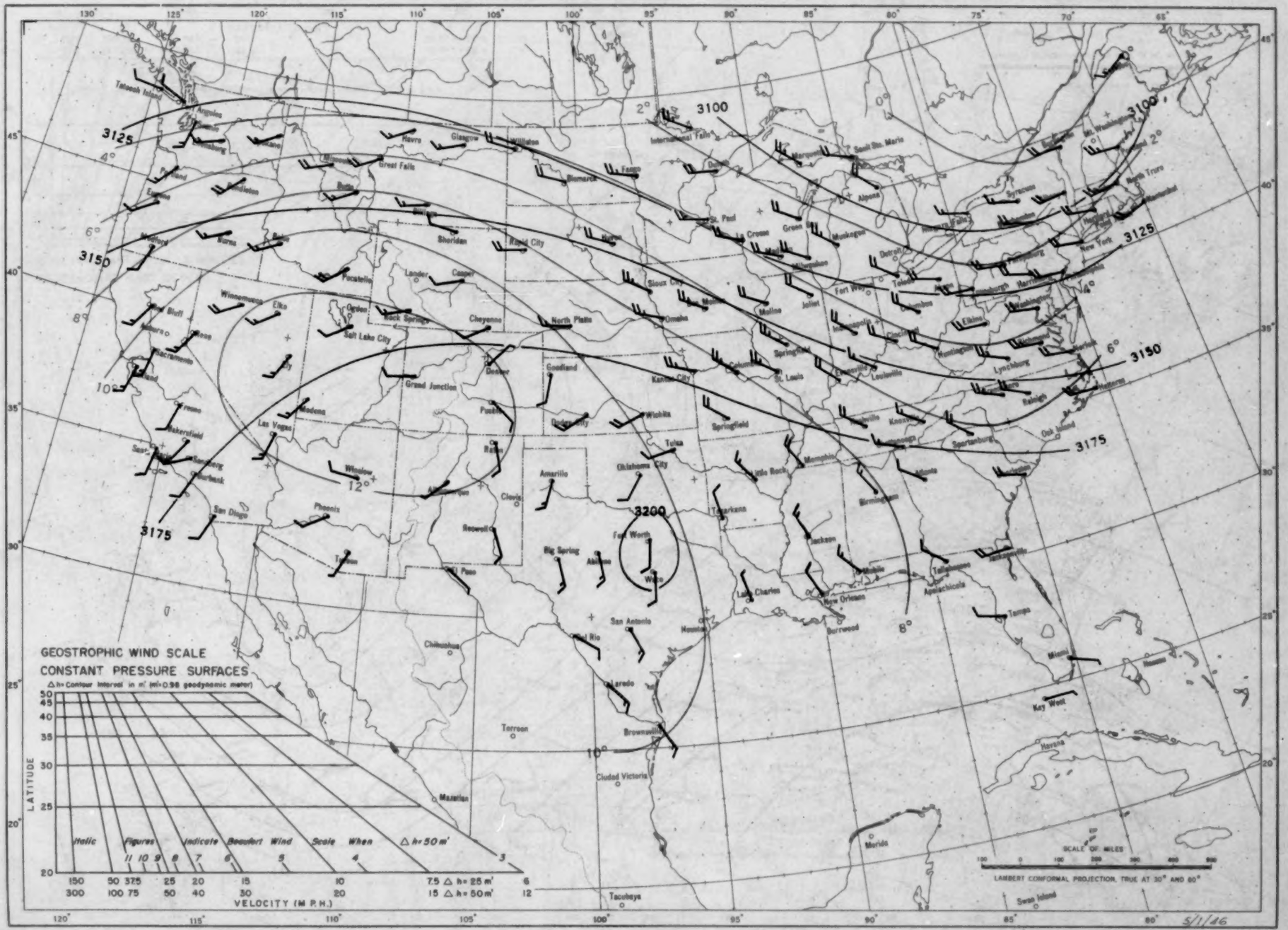


Chart VIII, August 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 850–millibar Pressure Surface, and Resultant Winds at 1,500 Meters (m.s.l.)


GEOSTROPHIC WIND SCALE
CONSTANT PRESSURE SURFACES
Δh= Contour interval in m' (m'=0.98 geodynamic meter)
LATITUDE
VELOCITY (M.P.H.)
Static Figures Indicate Steadier Wind Scale When Δh=50 m'
100 50 375 25 20 15 10 7.5 Δ h= 25 m' 6
300 100 75 50 40 30 20 15 Δ h= 50 m' 12
LAMBERT CONFORMAL PROJECTION, TRUE AT 30° AND 60°
SCALE OF MILES
5/1/46

Contour lines and isotherms based on radiosonde observations at 0300 G.C.T., and winds based on pilot balloon observations at 2200 G.C.T.

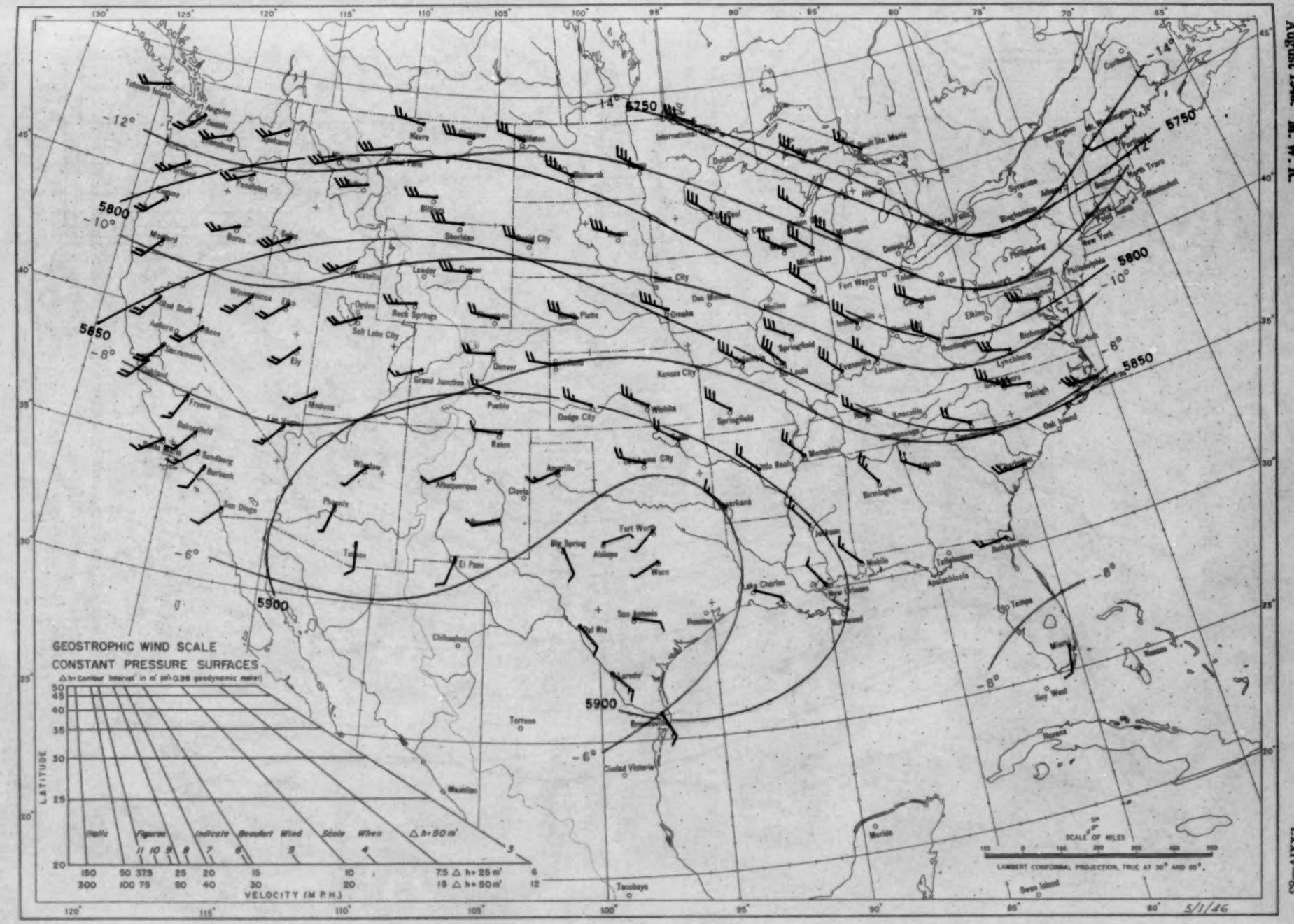
Chart IX, August 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 700–millibar Pressure Surface, and Resultant Winds at 3,000 Meters (m.s.l.)



Contour lines and isotherms based on radiosonde observations at 0300 G.C.T., and winds based on pilot balloon observations at 2200 G.C.T.

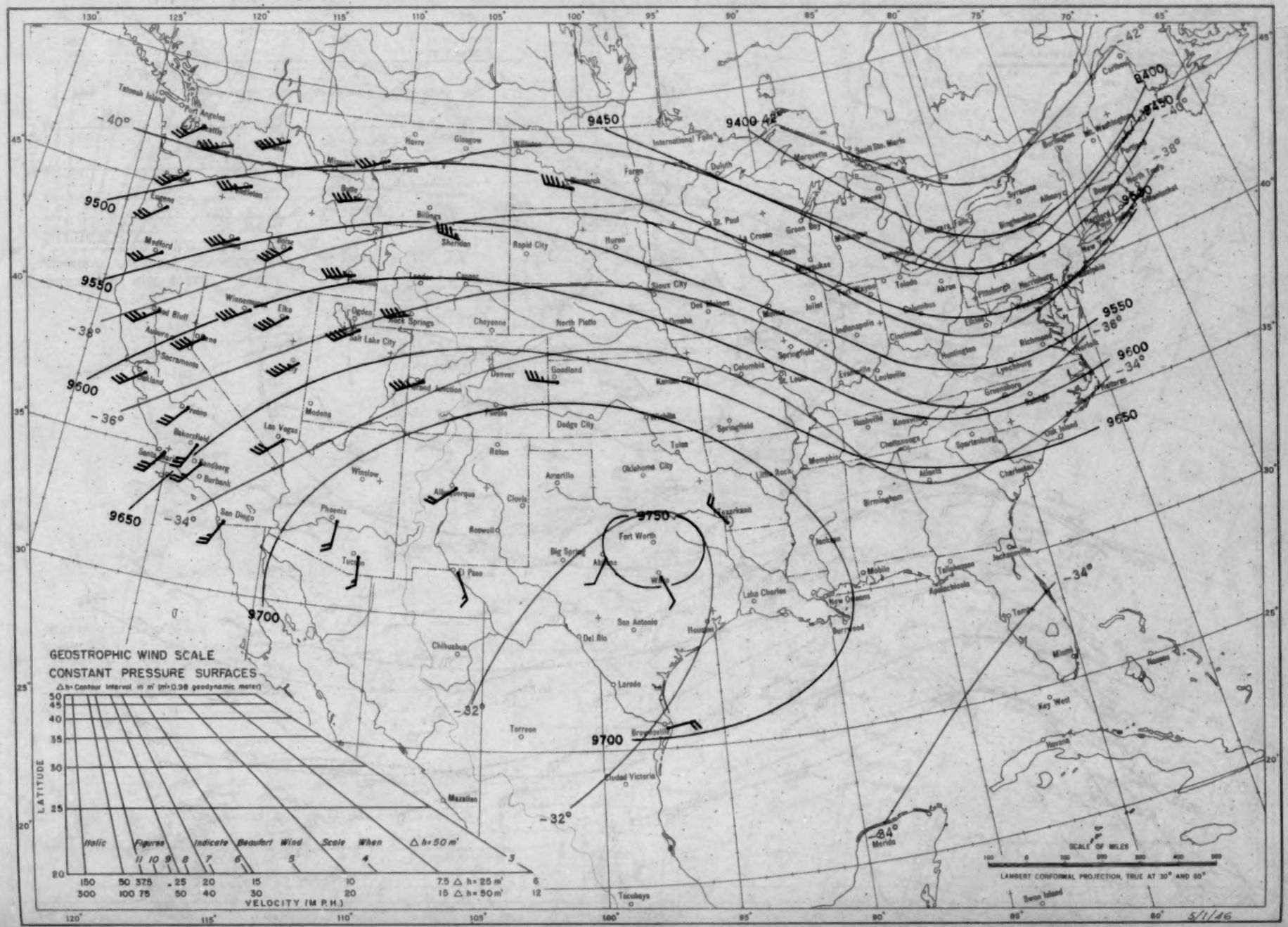
Chart X, August 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in

Chart X, August 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 500–millibar Pressure Surface, and Resultant Winds at 5,000 Meters (m.s.l.)



Contour lines and isotherms based on radiosonde observations at 0300 G.C.T., and winds based on pilot balloon observations at 2200 G.C.T.

Chart XI, August 1946. Contour Lines of Dynamic Height (Geopotential) in Units of 0.98 Dynamic Meter and Isotherms in Degrees Centigrade for the 300-millibar Pressure Surface, and Resultant Winds at 10,000 Meters (m.s.l.)



Contour lines and isotherms based on radiosonde observations at 0300 G.C.T., and winds based on pilot balloon observations at 2200 G.C.T.